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*Appendices to the Final
Environmental Impact Statement - Volume 2*

**STONE
LAKES** NATIONAL WILDLIFE REFUGE
SACRAMENTO COUNTY, CALIFORNIA



May 1992

Prepared for:



Department of the Interior
U.S. Fish and Wildlife Service
Pacific Region

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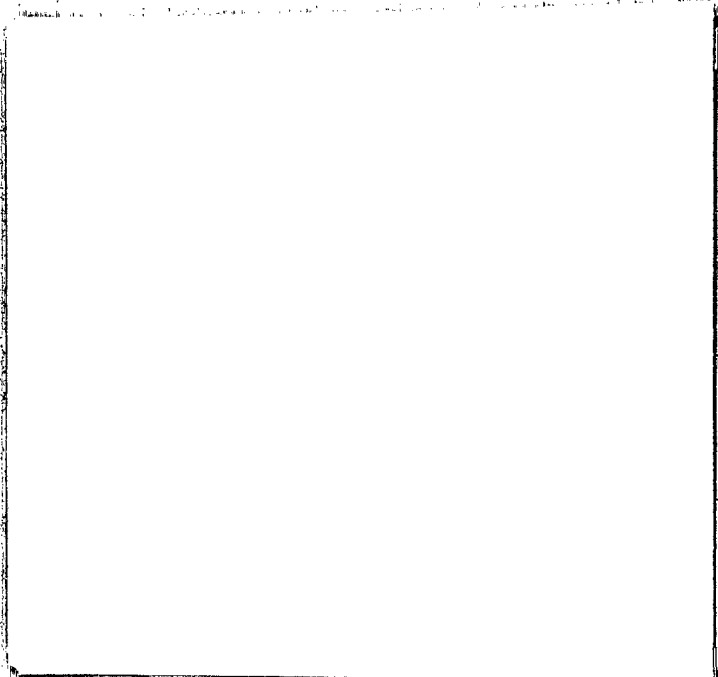
**Appendix A. Responses to Comments on the Draft EIS for
the Proposed Stone Lakes NWR Project**

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Stone Lakes National Wildlife
Refuge, Appendices to FEIS
(Vol. 2)



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List of Acronyms

AB	Assembly Bill
ARB	California Air Resources Board
CalEPA	California Environmental Protection Agency
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CPRD	California Parks and Recreation Department
CVHJV	Central Valley Habitat Joint Venture
CVRWQCB	Central Valley Regional Water Quality Control Board
CWMA	Cooperative Management Wildlife Area
DHS	California Department of Health Services
DPR	California Department of Parks and Recreation
DWR	California Department of Water Resources
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
I-5	Interstate 5
ISWP	Inland Surface Water Plan
LWCF	Land and Water Conservation Fund
MBCF	Migratory Bird Conservation Fund
MOU	memorandum of understanding
NAWMP	North American Waterfowl Management Plan
NDC	North Delta Conservancy
NEPA	National Environmental Policy Act
NOI	notice of intent
NWR	National Wildlife Refuge
PU	planning unit
RCD	Florin Resource Conservation District
RD	Reclamation District
ROD	record of decision
SCS	U.S. Soil Conservation Service
SCDPR	Sacramento County Department of Parks and Recreation
SLC	State Lands Commission
SMAQMD	Sacramento Metropolitan Air Quality Management District
SRCS	Sacramento Regional County Sanitation District
SYMVCD	Sacramento-Yolo Mosquito Vector Control District
TSMP	Toxic Substances Monitoring Program
USFWS	U.S. Fish and Wildlife Service

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Chapter 1. Introduction

NATIONAL ENVIRONMENTAL POLICY ACT REQUIREMENTS FOR RESPONDING TO COMMENTS

Under Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) Regulations, federal agencies are required, after completing a draft environmental impact statement (EIS), to consult with and obtain comments from public agencies having jurisdiction over the proposed project and to provide the general public with opportunities to comment on the draft EIS.

CEQ regulations also require that the lead agency evaluate public comments, both individually and collectively, and respond by one or more of the following means in the final EIS. Possible responses include adding to or modifying analyses and alternatives, making factual corrections, or explaining why the comments do not warrant further agency response. The regulations also require that the comments or summaries of the comments be attached to the final EIS; summaries of the comments are acceptable where the public and agency response has been extensive.

This appendix summarizes public comments on the draft EIS, reproduces agency comments, and presents the USFWS's responses.

PUBLIC REVIEW OF THE DRAFT EIS

The draft EIS was released for public review on May 20, 1991. In response to public requests, the review period was extended twice, on August 1 to September 1 and again on September 1 to October 15. The total length of the comment period was 150 days.

Public workshops to answer questions on the draft EIS were held in Elk Grove, City of Sacramento, and Courtland on June 14, 17, and 18, 1991.

Formal public hearings to receive verbal testimonies were held in Courtland, City of Sacramento, Elk Grove, and Walnut Grove on July 17, July 24, August 5, and October 1, 1991.

The USFWS received written and verbal input from over 6,000 commenters. Complete transcripts and records of attendance for the public hearings and copies of all

written comments on the draft EIS are on file in the Stone Lakes Realty Field Office in Sacramento.

CONTENTS OF THIS APPENDIX

This appendix contains five chapters. Following this introductory chapter, Chapter 2 presents a description of the public comment categorization, evaluation, and response process. Statistical data on the public comments is also presented in Chapter 2.

Chapter 3 summarizes and responds to major issues raised in public and agency comments. The major issues are organized generally by resource topic to allow the reader to easily locate discussions of issues of major interest.

Letters submitted by agencies are reproduced in Chapter 4; each letter is followed by the USFWS's responses to the agencies' comments.

Specific comments from individuals and organizations not addressed in the discussions of major issues in Chapter 3 are summarized and responded to in Chapter 5. Specific comments are also organized by resource topic to facilitate finding specific topic discussions.

Chapter 2. Summary of Public Comment and Content Analysis

The intense public interest and controversy surrounding the creation of the Stone Lakes NWR required that a unique approach be developed that would ensure that all comments received by the USFWS during the draft EIS comment period would be reviewed, categorized, and accounted for. In anticipation of the many comment letters that would be received during the comment period, the project team developed a method of comment review to ensure that all comment letters would be read and categorized according to commenter and content. The primary goals of this process were to:

- tabulate public opinion regarding the desirability of establishing a refuge or support for a specific NWR alternative,
- categorize the comments according to specific resources or issue areas, and
- respond to comments that addressed the adequacy of the draft EIS.

CATEGORIZATION OF COMMENTS

Comments on the draft EIS were classified by commenter category, comment issue, and comment type. The information was coded on a "Public Comment Summary Data Sheet" (Figure A-2-1). This method ensured that each comment requiring a response was correctly routed to the appropriate member of the EIS project team's technical staff and that preparation of individual responses to repetitive comments was limited.

Comments were first categorized by commenter category. Commenter categories consisted of public agencies, organizations, and individuals. The comment categories were then classified into subgroups. Public agency commenters were subgrouped as federal, state, county, or local agencies; organizations were subgrouped as local, state, or national groups; and individuals were subgrouped as local, state, or out-of-state residents.

Comments were then read and classified in primary issue categories. When possible, primary issue areas were then subclassified into specific issues areas. Primary issue categories included environmental review process; hydrology and water quality; wildlife, vegetation, and wetlands; land use; recreation; agricultural resources; economic and fiscal effects; mosquitos and public health; and management and acquisition. Comments could and were frequently placed into more than one of these issue categories.

PUBLIC COMMENT SUMMARY DATA SHEET NO. _____

TYPE OF COMMENT (circle one):

- 1* substantive comment
response required:
- generic response O.K.
- specific response(s)

2* form letter or survey
form code # _____

3* vote for Alternative _____

4* process concern (e.g. NEPA)

5* political statement

COMMENTER CATEGORY (circle one):

- 1* public agency:
- federal
- state
- county
- municipal or district

2* organization:
- local
- state or national

3* landowner in study area

4* individual(s):
- local resident
- Calif. resident
- out-of-state

ADDITIONAL REMARKS ON
COMMENT(ER):

COMMENT ISSUES (circle one or more),

PROJECT DESCRIPTION & OBJECTIVES:

- 1* boating in North Delta
2* Cosumnes River inclusion
3* urbanization of area
4* boundary of refuge
5* offsite alternatives, eg Yolo Basin

AGRICULTURE:

- 6* loss of prime farmland
7* pesticide regulation
8* buffers RE: farm practices
9* endangered species effects
10* water seepage & drainage
11* trespass & vandalism

ECONOMIC & FISCAL:

- 12* local business & jobs
13* local tax income & in-lieu tax
14* special districts
15* condemnation & bank loans

PUBLIC SAFETY:

- 16* flood control
17* fire hazard
18* mosquitos & public health

RESOURCES:

- 19* wildlife protection
20* ecosystem biodiversity
21* nature education & observation
22* open space preservation
23* waterfowl habitat
24* water quality & urban runoff

OTHER:

25* (write in issue): _____

26* (write in issue): _____

Figure A-2-1. Public Comment Data Sheet

The comments were then classified according to response requirement. Comments requiring a response were either addressed individually or in the form of a response to a major issue. All 31 public agency comments were addressed individually.

COMMENT RESPONSE

The process developed for responding to comments was designed to address all substantive issues raised during the draft EIS review period. A four-tier approach was developed for responding to substantive comments. The four-tier approach was to:

- prepare individual responses to all substantive comments made by public agencies;
- summarize and respond to major substantive issues, allowing an efficient and consistent response to repetitive, though substantive comments;
- individually respond to all substantive comments made by individuals that did not fall into major issue areas; and
- incorporate suggested changes to the draft EIS in the final EIS.

SUMMARY OF PUBLIC AND AGENCY COMMENTS ON THE DRAFT EIR

Commenter Classification

In response to the circulation of the draft EIS, the USFWS received written and verbal input from over 6,000 commenters. Of these commenters, 98.4% were individuals, 1.2% were organizations, and 0.5% were public agencies.

Individual commenters included landowners in the Stone Lakes study area, local residents (Sacramento, Yolo, and San Joaquin Counties), California residents, and out-of-state residents. As shown in Table A-2-1, individuals most frequently identified themselves as local residents (70.2%), followed by California residents (20.7%).

Comments were also received from local, state, and national organizations. Comments from organizations were most frequently submitted by state organizations (49.3%), followed by local organizations (32.4%).

Table A-2-1. Origin of Comments

Origin of Commenter	Individuals		Organization		Total	
	Number	Percent	Number	Percent	Number	Percent
Landowner	84	1.4	0	0.0	84	1.4
Local	4,179	70.6	23	32.4	4,202	70.2
California	1,223	20.7	35	49.3	1,258	21.0
National	296	5.0	13	18.3	309	5.2
Unknown	<u>135</u>	<u>2.3</u>	<u>0</u>	<u>0.0</u>	<u>135</u>	<u>2.3</u>
Total	5,917	100.0	71	100.0	5,988	100.0

Notes: Landowners are individuals identifying themselves as property owners in the Stone Lakes NWR study area. Local area consists of Sacramento, Yolo, and San Joaquin Counties.

Comment Format

Comments on the draft EIS were submitted in individual letters, form letters, and petitions or orally at public hearings. As shown in Table A-2-2, form letters were the most frequently submitted comment format (83.9%), followed by letters submitted either by individuals, organizations, or public agencies.

Comment Issues

Comments were categorized into ten major issue types:

- environmental review process;
- hydrology and water quality;
- wildlife, vegetation, and wetlands;
- land use;
- recreation;
- agricultural resources;
- economic and fiscal concerns;
- mosquitos and public health;
- management and acquisition; and
- miscellaneous.

The miscellaneous category included issues such as cumulative impacts, offsite alternative analysis, and project description.

As shown in Table A-2-3, the issue of economic and fiscal effects was raised most frequently (29.7%), followed by mosquitos and public health (19.3%).

Public agencies commented most frequently on agricultural resources and water quality and hydrology issues. Organizations and individuals writing letters focused their comments on wildlife, vegetation, and wetlands or recreation issues. Form letters submitted by individuals commented most frequently on economic and fiscal issues and mosquitos and public health issues.

Selection of Alternative

Many commenters indicated a preference for a specific NWR alternative, indicated support or opposition to the creation of an NWR, or proposed an alternative not analyzed in the draft EIS. In addition, 18.2% of the commenters did not express a preference for or against the creation of the Stone Lakes NWR.

Table A-2-2. Comment Format

Vehicle	Number	Percent
Form letters	5,019	83.4
Individual letters	750	12.5
Petitions	4	0.1
Public hearing testimonies	<u>57</u>	<u>0.9</u>
Total	5,830	100.0

Note: Petitions represent 190 signatures.

Table A-2-3. Comment Issues

Comment Type	Number	Percent of Total
Environmental review process	1,003	8.4
Hydrology and water quality	882	7.4
Wildlife, vegetation, and wetlands	1,434	12.0
Land use	157	1.3
Recreation	1,041	8.7
Agricultural resources	1,332	11.1
Economic and fiscal resources	3,554	29.7
Mosquitos and public health	2,307	19.3
Management and acquisition	83	0.7
Other	<u>178</u>	<u>1.5</u>
Total	11,971	100.0

As shown in Table A-2-4, over 28% of the commenters were opposed to creating an NWR. Of the alternatives analyzed in the draft EIS, Alternative C1 was the most popular (24.7%), followed by Alternative A - No Action (8.5%).

As shown in Table A-2-5, approximately 21% of the commenters that submitted individual letters indicated support of the refuge. Approximately 16% of the commenters expressed opposition to the establishment of the refuge. Of the alternatives analyzed in the draft EIS, Alternative E was the most popular (14%), followed by Alternative C1 (10%). In addition, approximately 24% did not indicate a preference for or against the establishment of the refuge.

As shown in Table A-2-6, approximately 30% of the commenters that submitted form letters opposed the refuge and 5% supported establishment of the refuge. Of the alternatives analyzed in the draft EIS, Alternative C1 was the most popular (28%), followed by Alternative A (10%). In addition, approximately 17% did not indicate a preference for or against the establishment of the refuge.

Table A-2-4. Alternative Preference

Alternative	Vote	Percent of Total
USFWS alternatives		
A	511	8.5
B	2	0.0
C1	1,488	24.7
C	21	0.3
D	29	0.5
E	347	5.8
Other alternatives ^a	368	6.1
Opposed ^b	1,692	28.1
Support ^b	466	7.7
No vote ^c	<u>1,092</u>	<u>18.2</u>
Total	6,016	100.0

Note: Categories are mutually exclusive.

^a Other alternatives include Alternative A-1, proposed by the North Delta Conservancy.

^b Opposed indicates opposition to the Stone Lakes NWR project. Support indicates commenter supported a refuge but did not specify a specific NWR alternative.

^c No vote indicates that commenter addressed the content or adequacy of the draft EIS but did not specifically indicate support or opposition to the Stone Lakes NWR project.

Table A-2-5. Alternative Preference (Individual Letters)

Alternative	Vote	Percent of Total
USFWS alternatives		
A	28	2.8
B	1	0.1
C1	100	10.0
C	2	0.2
D	28	2.8
E	141	14.1
Other alternatives ^a	86	8.6
Opposed ^b	163	21.2
Support ^c	212	21.2
No vote ^d	<u>237</u>	<u>23.7</u>
Total	998	100.0

Note: Categories are mutually exclusive.

^a Other alternatives include Alternative A-1, proposed by the North Delta Conservancy.

^b Opposed indicates opposition to the Stone Lakes NWR project.

^c Support indicates commenter supported a refuge but did not specify a specific NWR alternative.

^d No vote indicates that commenter addressed the content or adequacy of the draft EIS but did not specifically indicate support or opposition to the Stone Lakes NWR project.

Table A-2-6. Alternative Preference (Form Letters)

Alternative	Vote	Percent of Total
USFWS alternatives		
A	483	9.6
B	1	0.0
C1	1,388	27.7
C	19	0.4
D	1	0.0
E	206	4.1
Other alternatives ^a	282	5.6
Opposed ^b	1,524	30.4
Support ^c	249	5.0
No vote ^d	<u>855</u>	<u>17.1</u>
Total	5,008	100.0

Note: Categories are mutually exclusive.

^a Other alternatives include Alternative A-1, proposed by the North Delta Conservancy.

^b Opposed indicates opposition to the Stone Lakes NWR project.

^c Support indicates commenter supported a refuge but did not specify a specific NWR alternative.

^d No vote indicates that commenter addressed the content or adequacy of the draft EIS but did not specifically indicate support or opposition to the Stone Lakes NWR project.

Chapter 3. Responses to Major Issues Raised in Public Comments on the Draft EIS

This chapter summarizes and responds to major issues raised in public comments on the draft EIS. Major issues are generally defined as those categories of issues or concerns that were identified repeatedly in public comments. Highly controversial issues or issues that involve significant or potentially significant impacts were also identified as major issues. The public comments on each major issue are summarized in the following sections and followed by USFWS responses.

ENVIRONMENTAL REVIEW PROCESS

Adequacy of the Public Involvement Process

Many commenters addressed the adequacy of the USFWS's public involvement efforts on the draft EIS for the Stone Lakes NWR project. Comments were submitted by private individuals, interest groups, and organizations in individual letters, form letters, petitions, and oral testimonies at public hearings.

The vast majority of comments on the public involvement issue came from the boating community; these commenters expressed concern that the boating community was not adequately notified during the planning stages for the Stone Lakes NWR project. Boating community commenters include recreational boaters, boating organizations and clubs, and marina and other boating-related business owners and operators. Commenters reasoned that because boaters were unaware of the project, they were unable to attend and participate in meetings and workshops during scoping for the project.

Some comments expressed the opinion that the USFWS's failure to notify the boating community was a deliberate ploy to avoid dealing with potential opposition to the project. Other comments from the boating community indicated that recreational boating organizations were not contacted, no notice of the project was given in monthly boating publications, and the California Department of Boating and Waterways and U.S. Coast Guard were not notified or involved in the Stone Lakes NWR project interagency policy planning group.

Comments from landowners, farmers, and farmland protection organizations stated that local interests were not involved in the process of formulating the refuge boundary configurations and alternatives. In addition, the Delta communities were not adequately informed of potential impacts on flood control or the economic consequences of farmland

conversion. Commenters felt that, other than limited advertising, no attempt was made to inform the people directly affected by the project of their right to review and comment on the project.

Many commenters expressed the opinion that the lack of notification of the boating community, landowners, farmers, and other local residents and opportunity to provide early input in the planning process is a direct violation of NEPA notification requirements. These commenters indicated that consequently a draft supplemental EIS should be prepared and distributed for additional public review and comment to address local concerns and to allow local involvement in the process.

Commenters also expressed dissatisfaction with the roles of the interagency policy planning group and steering committee in project planning and preparation of the draft EIS. Commenters stated that these groups were originally established to assist in refuge planning and formulation of alternatives. However, these groups were not sufficiently involved in the decision-making process to identify and mitigate local issues and concerns. Some commenters requested documentation in the EIS of the groups' meetings.

Many of the comments submitted before the end of the original comment period on the draft EIS requested a 60- to 90-day extension of the review period.

Other commenters expressed the opinion that the level of public notification and involvement in the environmental review process was adequate. These commenters cited the following reasons:

- the USFWS decided to prepare an EIS on the proposed project rather than an EA based on information obtained through public scoping;
- the USFWS conducted workshops and public hearings on the project and the meetings were well attended;
- television, radio, and newspaper coverage of the proposed project has been extensive; and
- the public comment period was extended twice to allow for additional local input and public hearings and workshops.

The NEPA Handbook - Intra-Service Planning and Documentation (U.S. Fish and Wildlife Service 1983) provides guidance for applying the requirements of NEPA, the NEPA regulations, and the provisions of the U.S. Department of the Interior's NEPA Manual (516 DM 1-6) to actions initiated by the USFWS. The handbook explains the steps that must be taken to adequately document and obtain NEPA compliance, including public involvement requirements.

NEPA regulations require that a notice of intent (NOI) be published in the Federal Register to notify interested and affected parties of the USFWS's intent to prepare an EIS. The USFWS published the NOI for the Stone Lakes NWR project EIS in October 1990 in the Federal Register, Sacramento Bee, and Sacramento Union. Notices were also distributed to local radio and television news media.

The scoping process follows publication of the NOI. The purpose of scoping is to identify interested and affected parties, cooperating agencies' responsibilities, and the range of issues to be addressed in the EIS. The NEPA handbook notes that scoping may be facilitated through the hosting of formal public meetings, informal workshops, open houses, newspaper announcements, newsletters, brochures, some combination of the above, or other means. A public meeting will normally be part of the scoping process; more than one public meeting may be necessary.

Before deciding to prepare an EIS, the USFWS formed the interagency policy planning group (March 1990) to assist in planning for the proposed refuge project; conducted scoping workshops for the EA in the Cities of Galt and Sacramento (April 1990); and formed a steering committee representing local organizations and interests to provide recommendations on the project and alternatives (June 1990). Following the decision to prepare an EIS rather than an EA, the USFWS conducted scoping workshops in the City of Sacramento and community of Walnut Grove (October 1990). Scoping activities and agencies, groups, and individuals consulted in the scoping process are documented in the scoping report in Appendix B of the final EIS.

On completion of the draft EIS, the document was distributed for public review. NEPA regulations require that a draft EIS be circulated for comment to all relevant federal, state, and local agencies; Native American tribes; and applicants and members of the public who request it. The usual comment period on a draft EIS is not less than 45 days, although provisions exist for both reducing and extending that period. The NEPA handbook notes that it may be appropriate to host a public information meeting or public hearing during the draft EIS review period. The handbook also indicates that dates and locations of any public meetings will be published in the Federal Register and notices of the meetings should be made available through other media as appropriate.

The USFWS distributed 486 copies of the draft EIS to the public for review and comment and 526 copies of the executive summary. The public review period was extended twice at public request to provide additional time for public review; the total length of the review period was 150 days. The USFWS held four formal public hearings to receive verbal testimony on the draft EIS.

The USFWS has exceeded the level of public involvement required by the NEPA regulations and USFWS NEPA handbook. Public involvement efforts for the draft EIS are considered adequate.

Need for Supplemental Draft EIS

Many commenters expressed concerns about the adequacy of the draft EIS and requested that a supplemental draft EIS be prepared and circulated for public review and comment before preparation of the final EIS. Comments on this issue were submitted by private individuals, interest groups, and organizations in individual letters, form letters, petitions, and oral testimonies at public hearings. The Courtland Fire District and Walnut Grove Fire District also requested the preparation of the supplemental draft EIS.

Commenters stated that a supplemental draft EIS is needed to address the omissions and deficiencies on one or more of the following topics:

- documentation of interagency policy planning group and steering committee meetings;
- State Lands Commission (SLC) involvement in the project;
- project boundaries;
- liability exposure;
- potential for North Delta Conservancy (NDC) involvement in the project;
- USFWS condemnation policy;
- Farmland Policy Protection Act;
- land protection plan;
- discussion of offsite and other alternatives not considered in detail;
- oil and gas development and exploration;
- agricultural and urban runoff policies;
- flood control;
- landowner water rights;
- cultural resources;
- compatibility of a NWR with the Laguna Creek residential development and I-5 off-ramp;
- recreational boating;

- conversion of agricultural lands;
- potential impacts on farming practices and agricultural production resulting from endangered species' reintroduction, crop depredation, water seepage, weeds, pests, and farmland values and threat of condemnation,
- buffer areas;
- impacts on the local economy and special districts; and
- mosquitos and public health.

Under NEPA, the lead agency must reopen the NEPA process when a draft EIS is "so inadequate as to preclude meaningful analysis". In this case, the NEPA CEQ Guidelines require the lead agency to prepare and circulate a revised draft of the EIS (Section 1502.9[a]). This revised document is called a supplement to the draft EIS. A supplement to the draft EIS is required when:

- substantial changes are made to the proposed action that are "relevant to environmental concerns" or
- new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts are identified (CEQ Guidelines Section 1502.9[c]).

The standard for assessing whether to prepare a supplemental draft EIS is similar to the standards for the decision to prepare the first EIS: Is there information that the public has not had a chance to review? Are there significant impacts that need to be disclosed to the decision maker? For the proposed Stone Lakes NWR project EIS, there is no new information and no significant impacts that have not yet been addressed. The Mitigated Preferred Alternative presented in the final EIS has been developed to avoid impacts identified in the draft EIS. Therefore, a new draft (or "supplemental") EIS is not required. However, because the CEQ NEPA regulations indicate that in circumstances where the responses to comments modifies the proposed project and EIS analyses (which is the case at hand), the final EIS would need to incorporate a rewritten version of the draft EIS. The final EIS includes a rewritten version of the draft EIS.

HYDROLOGY AND WATER QUALITY

Flooding and Flood Control Projects

The major issues and concerns expressed in the public comments pertained to whether the NWR would contribute to greater flooding potential upstream, downstream, or

adjacent to the proposed refuge, and how the North Delta Project proposed by the California Department of Water Resources (DWR) would affect or be affected by the proposed refuge. Other concerns included the potential for changes to existing levee maintenance or operation of flood control and drainage infrastructure with implementation of the NWR.

Landowners and flood management agencies in the North Delta expressed concern that changes in the Stone Lakes basin may raise 100-year flood elevations in the Mokelumne River and its tributaries by reducing storage in the basin. Landowners upstream of the Lambert Road flapgate structure are concerned that changes in the basin may raise flood storage elevations within the Stone Lakes basin, flooding more land, or that the presence of the NWR would prevent future flood control improvement projects for the basin.

Although specific site planning and management details of the NWR have not yet been developed, the USFWS stated in the draft EIS and final EIS that operation of the refuge would not affect current maintenance of levees and channels, or operation of major drainage outlets required for flood control. A Memorandum of Understanding (MOU) between the USFWS, local governing agencies, and adjacent reclamation and flood control districts would be developed to guarantee the continued operation and maintenance of existing flood control systems, with sufficient access and any needed right-of-way. The MOUs between the USFWS and various local entities would be consistent with existing and anticipated future flood control policies for the area.

The NWR area upstream of Lambert Road would continue to function as a floodwater detention basin because the proposed refuge would not interfere with the Lambert Road tidegate structure or with major levees that contain floodwaters in the basin. The final EIS states that floodflow modeling completed for the Morrison Creek Stream Group Reconnaissance Report prepared by the Corps in 1987 indicated that flood levels associated with major flood events in the Stone Lakes basin are insensitive to any reasonably expected Beach/Stone Lakes flood area modifications. See Chapter 5D of the final EIS for more discussion of NWR project effects on flood capacity and flood protection.

The Lambert Road tidegate structure acts as a hydraulic control, backing floodwaters upstream into the Beach/Stone Lakes complex. The Beach/Stone Lakes complex acts like a reservoir impoundment during major flood events, with flooding depths of 5-15 feet over much of the 12,000-acre flood zone. Therefore, the effects of proposed NWR habitat restoration plans on flood levels, including constructing low berms, planting trees, and regrading within this area, are expected to be minimal. Implementation of the NWR does not require any channel alterations along Snodgrass Slough downstream of the Lambert Road tidegate structure or along the SPRR canal, the primary flood conveyance channels that pass floodwaters through the basin.

A related flood control issue is the potential loss of flood basin storage volume occupied by water applied to NWR-managed shallow wetlands during the winter runoff season. Under the Mitigated Preferred Alternative, the USFWS would create 376 acres of

permanent wetlands and 1,696 acres of seasonal wetlands, primarily in PU 10A at South Stone Lake on existing upland sites. Water depth in seasonal wetlands would average 1 foot and permanent wetlands would average 3 feet, representing a potential total wetland storage volume of 2,824 acre-feet if NWR restoration objectives were fully realized at the end of a 15-year planning horizon.

The Federal Emergency Management Agency (FEMA) mapped 100-year floodplain upstream of the Lambert Road flapgate appears in PUs 2, 3, 6, 7, 9, 10A, and 10B. The floodplain covers 11,110 acres (see Table 4D-1 in the final EIS) at the assumed 100-year water level of 14.1-foot elevation (Gill and Pulver 1988). However, more recent unpublished estimates of the 100-year flood water elevation are at the 16.8-foot elevation and would represent a much larger, undetermined flood storage area. Assuming a water elevation of 14.1 feet, the occupied storage volume of NWR wetlands represents a 3-inch rise in water level distributed over the entire Beach/Stone Lakes flood basin.

Another way to predict loss of flood storage volume to managed wetlands is to estimate wetlands volume as a percent of total estimated storage volume in the basin. Unfortunately, no detailed studies have been completed by federal, state, or local flood management agencies that accurately quantify flood storage volume in the basin. An approximation of basin storage volume relative to water elevation was included in the Gill and Pulver study (1988) based on existing USGS 5-foot contour maps of the area. This study accounted only for flood storage west of Interstate 5 (I-5) (i.e., PUs 3, 6, and 10), representing 7,800 acres of reservoir area and approximately 75,000 acres of storage volume at the 14.1-foot elevation or 120,000 acres of storage volume at the 16.8-foot elevation. Land in the floodplain east of I-5 (i.e., PUs 2, 7, and 9) would add an estimated 21,000-29,500 acre-feet of additional storage volume. Thus, water applied to proposed NWR-managed wetlands could occupy 2.9% (at the 14.1-foot elevation) or 1.9% (at the 16.8-foot elevation) of the 100-year flood volume in the Beach/Stone Lakes basin.

The above analyses conservatively assume that no fraction of wetlands water volume would be occupied by natural local runoff already present in the basin, and that 100% of USFWS restoration objectives for the NWR would be met before any improvements to the flood management infrastructure are made by other agencies over the next 15 years. Both assumptions are improbable, but reliable timeline predictions for improvements in the floodplain management cannot be determined at this time. If the USFWS achieves approximately half the wetland restoration objectives over the first 5 years of project implementation, water volume in managed wetlands would represent less than 1.5% of basin flood storage volume, assuming the 100-year flood water elevation at 14.1 feet, or 1% at 16.8 feet; this would represent less than 1.5 inches of water surface elevation distributed over the entire basin reservoir. These estimated effects on flood levels in the basin are inconsequential relative to overall basin storage and function and the overriding effects of Delta flood backwater from the Mokelumne and Cosumnes Rivers or the beneficial effects of DWR's proposed North Delta Program for reduction of floodwater levels affecting the Stone Lakes basin.

Sacramento County has requested a technical proposal from consulting engineers and planners for a comprehensive 100-year flood analysis and flood control master plan for the entire Beach/Stone Lakes basin. The study and phased recommendations to reduce basin flooding would be completed in 1992 or 1993. A companion study and flood control master plan affecting the basin is under preparation by James M. Montgomery, Consulting Engineers under contract to Sacramento County for the Morrison Creek and tributary watershed. The study and recommendations will be completed in 1992, with phased implementation to begin in the next 2-3 years. The DWR North Delta Program has an uncertain implementation timeline. These and other future flood control studies and improvement projects would be considered by the USFWS at the specific plan stage of NWR implementation, including location, design, and water management schedules for restored and managed wetlands.

The establishment of the refuge would have little, if any, effect on DWR's North Delta project, which includes major flood protection measures predominantly downstream of the NWR study area and the proposed Mitigated Preferred Alternative area. Floodwaters from the Cosumnes and Mokelumne Rivers and Dry Creek are slowed by the limited capacities of the North and South Forks of the Mokelumne River downstream. This constriction causes Delta slough backwater effects that tend to override any flood effects caused by drainage from the Beach/Stone Lakes area. Land use changes in the NWR study area related to NWR implementation would therefore have a negligible effect, if any, on flooding in San Joaquin County.

The North Delta project may, however, have major effects on flooding in San Joaquin County and in the NWR study area. The reduction of historically flooded areas and the changing of floodwater levels in Snodgrass Slough associated with the North Delta project could affect the backwater levels at Lambert Road which in turn affect the outflows from the Beach/Stone Lakes complex. To what extent the North Delta project would affect the proposed NWR area hydrology under more frequent or average weather conditions is unknown. However, the DWR is committed to participate with the USFWS in the development of the NWR to provide mitigation for any future adverse impacts of the North Delta project, if approved (California Department of Water Resources 1990).

The intent of the draft EIS and final EIS was not to analyze the detailed effects on flooding of the proposed refuge but rather to point out the potential overall effects of such a refuge. Given the present conceptual level of detail of the proposed NWR, the final EIS sufficiently addresses the effects of the NWR on existing flood control infrastructure.

Water Rights, Sources, and Demand

A major issue identified in the public comments was that the draft EIS did not provide sufficient detail about existing water sources, water rights, and anticipated NWR water demands to assess the impacts addressed in the report.

Refuge water supply constraints cannot be investigated in more detail because a specific plan for each PU has not been developed at this stage in the planning process. When the USFWS develops such plans, the accompanying environmental reports will address in detail water rights and water availability for lands within each PU. Based on site-specific NWR implementation plans, water demand will be estimated for that unit, and the anticipated means to secure water for NWR operation on each parcel to be acquired will be investigated. Confirmation of specific water rights associated with land ownership changes or easement agreements will be investigated when the specific plans for each PU are developed.

The purpose of the water demand tables in the draft EIS was to indicate potential changes in water demand that could take place with implementation of the NWR. The water demand tables indicate overall trends in water demand changes that could be caused by the NWR. Results of the water demand tables show that the NWR would require more applied water in winter and less in summer compared to existing land use conditions. The tables also indicate that the NWR would result in an annual net reduction in water demand for each PU compared to existing conditions.

The intent of the draft EIS and final EIS was not to analyze the detailed site-specific effects of the proposed refuge but rather to point out the overall potential effects of such a refuge. Given the present level of detail of the proposed NWR project, the final EIS sufficiently addresses the effects of the refuge on existing water sources. Existing water sources and riparian water rights within the boundaries of the NWR from the North Delta, Stone Lakes basin, Morrison Creek, and lower Cosumnes River appear adequate to meet anticipated overall refuge water needs.

Seepage and Local Drainage Effects

The major issues identified in the public comments were that the draft EIS did not have sufficient details about the effects of the proposed NWR on existing adjacent local drainage infrastructure and the site-specific effects of lateral seepage from created wetlands into nearby agricultural fields.

The existing drainage ditches are used to store and transport irrigation water to crops in the warm season. In fall, winter, and early spring, the water levels in the ditches are pumped as low as possible to lower the local water table to below the root zone of perennial and winter crops, vines, and orchard trees. This measure also provides more winter stormwater capacity to the low-lying drains.

The draft EIS and final EIS clearly state that the NWR could potentially affect local drainage infrastructure. Maintaining seasonal wetland habitats in winter may increase the rate of seepage into these adjacent ditches. As recommended in the draft EIS and final EIS, a monitoring and avoidance program should be developed by the USFWS to mitigate for these potential impacts. A site analysis and monitoring program would be implemented

before construction and operation of the NWR, with particular emphasis on those lands below the 5-foot elevation and lands having a high density of collector drains in areas with typically shallow water tables.

Site-specific measures designed to avoid seepage impacts on adjacent lands are technically feasible and economically practical for the USFWS to employ where needed. Options for impact avoidance measures include excavating new or deeper perimeter drainage ditches surrounding flooded wetlands, installing higher capacity sump pumps at drainage collection points, locating wetlands with adequate upland buffers that diminish lateral seepage migration, draining seasonal wetlands before adjacent crops come out of winter dormancy, and avoiding wetland creation in areas where seepage conflicts are not easily solved.

Detailed assessments of how the NWR would affect the local infrastructure cannot be made without a site-specific refuge plan. When the USFWS develops a specific refuge plan for created wetlands in each parcel, the impacts of the proposed plan on the current drainage infrastructure will be investigated in detail. The potential impacts of each phase of the refuge implementation plan will be evaluated in detail as part of future environmental documentation required to comply with NEPA.

Potential Effects of an NWR on Water Quality Objectives for Urban Runoff and Agricultural Drainage

The majority of the public comments on water quality expressed concern that the presence of a NWR would require more stringent water quality objectives for urban runoff and agricultural drainage in the Stone Lakes study area. Most of the commenters represented residential developments, individual land owners, or reclamation districts. The analysis in the draft EIS assumed that the presence of the NWR would not change the applicability of the Inland Surface Water Plan (ISWP) objectives to these surface waters. This information has been verified, and the discussion of the issue clarified and expanded in Chapter 4D, "Affected Environment: Hydrology and Water Quality", of the final EIS.

The federal Clean Water Act requires all discharges to surface waters to meet applicable water quality objectives to protect beneficial uses, which are those presented in the ISWP. Beneficial uses such as wildlife and aquatic habitat associated with the presence of wetlands already exist in large areas of the NWR study area. Therefore, the presence of the NWR would not change the fact that water quality objectives from the ISWP are applicable to the receiving water bodies in the study area. Commenters should contact the Central Valley Regional Water Quality Control Board (CVRWQCB) with questions about how the objectives apply to their specific discharge.

WILDLIFE, VEGETATION, AND WETLANDS

Biodiversity

Comments submitted by private individuals and conservation groups stated that the refuge is needed to preserve biodiversity. The term "biodiversity" refers to the number of different species of plants and animals occurring in an area. Typically, the greater the range of habitats protected, the greater the number of species protected.

The final EIS addresses the diversity of species and habitats that would be protected under the six NWR alternatives and the No-Action Alternative. In addition, special-status plant and wildlife species known or potentially occurring in the Stone Lakes study area are discussed. Alternatives covering larger areas would protect more habitat types and therefore preserve greater biodiversity. Modifications of Alternative C, the original proposed action, to create Alternative C1, the preferred alternative presented in the draft EIS, had little effect on the number of native species protected because the PUs excluded from Alternative C1, PUs 5 and 11, are agricultural land. Delta Meadows (PU 30) and the wetlands at the DWR property (PU 16) are excluded from the Mitigated Preferred Alternative presented in the final EIS; the large areas of natural habitat in these PUs would not receive the protection afforded by a NWR under this alternative.

The USFWS determines the boundary of an NWR based on several factors, including the goals of the refuge project, habitat values, resource conflicts, political boundaries, public interest, state concerns, and input from landowners and other interest groups. Usually, the final boundaries are a balance between the needs of fish and wildlife resources and the interests of the public. The relative biodiversity values of the various refuge alternatives will be considered in the USFWS decision-making process.

Wetlands

Comments submitted by private individuals and conservation groups stated that the refuge is needed to preserve and protect wetlands. Many of these commenters mentioned the high ecological values of wetlands and their great reduction in extent from historic times.

The final EIS outlines ways in which wetlands would be preserved, protected, enhanced, and created under the proposed project and alternatives. The Mitigated Preferred Alternative would protect a variety of wetland types, including riparian forest, riparian scrub, freshwater marsh, wet meadow, vernal pool, and ephemeral wet swale. Delta Meadows (PU 30) and the wetlands at the DWR property (PU 16) are excluded from the Mitigated Preferred Alternative presented in the final EIS; under this alternative, the large areas of wetlands in these PUs would not receive the protection afforded by a NWR.

As discussed in the discussion of biodiversity above, the USFWS determines the boundary of an NWR based on several factors, including project goals, resource values and conflicts, and public concerns. A major goal of the Stone Lakes project is to preserve, enhance, and restore Central Valley wetlands. The relative wetland values of the various refuge alternatives will be considered in the USFWS decision-making process.

Wildlife Movement Corridors

In public comments submitted on the draft EIS, private individuals and conservation groups expressed concern about fragmentation of wildlife habitat and loss of wildlife movement corridors. These commenters stated that the NWR is needed to protect and establish wildlife habitat corridors and slow habitat fragmentation.

Wildlife movement corridors and habitat linkage to other existing and proposed wildlife areas in the Stone Lakes study area are discussed as beneficial impacts of the various refuge alternatives. The Stone Lakes NWR would form a critical upland habitat link to the proposed Yolo Basin Wildlife Area, which would create riparian habitats and seasonal and permanent wetlands in a lowland floodplain.

As discussed above, a major goal of the Stone Lakes project is to create linkages between refuge habitats and habitats on adjacent lands to reverse past impacts of habitat fragmentation on wildlife and plant species. The USFWS will evaluate the relative benefits of each refuge alternative for creating habitat linkages and wildlife movement corridors and use this information in its decision-making process.

Protect Threatened and Endangered Species

Comments received from private individuals and conservation groups stated that the refuge should be established to protect threatened and endangered wildlife and plant species.

The final EIS identifies alternative refuge acquisition boundaries and evaluates the threatened and endangered plants and wildlife that would be protected under each of the alternatives. The USFWS will use this information in its decision-making process.

A goal of the Stone Lakes project is to preserve, enhance, and restore habitat to maintain and assist in the recovery of rare, endangered, and threatened plants and animals. The USFWS will evaluate the relative benefits of each refuge alternative for protecting threatened and endangered species and use this information in its decision-making process.

Protect Wildlife and Wildlife Habitat

Comments received from private individuals and conservation groups stated that the national wildlife refuge should be created to preserve and restore wildlife habitat.

A goal of the Stone Lakes project is to preserve, enhance, and restore a diverse assemblage of native Central Valley plant communities and their associated fish, wildlife, and plant species. The final EIS evaluates the preservation and restoration of wildlife habitat under each of the six NWR alternatives and the No-Action Alternative. Preservation and restoration of wildlife habitat are considered beneficial impacts of the project. The USFWS will use this information in its decision-making process.

Protect Waterfowl Habitat

Comments received from private individuals and conservation groups stated that the Stone Lakes NWR is critical as habitat for waterfowl and other migratory birds along the Pacific Flyway and should be acquired for their protection.

The USFWS has acknowledged the importance of the Stone Lakes area to waterfowl and other migratory birds in the statement of goals for the Stone Lakes project. A goal of the project is to preserve, enhance, and restore Central Valley wetlands and adjacent agricultural lands to provide foraging and sanctuary habitat needed to achieve the distribution and population levels of migratory waterfowl and other waterbirds consistent with the goals and objectives of the North American Waterfowl Management Plan (NAWMP) and Central Valley Habitat Joint Venture (CVHJV) programs. The benefits of the refuge to waterfowl and other migratory birds are evaluated in the final EIS for each alternative. Protection and creation of waterfowl habitat are considered beneficial impacts of the project. The Mitigated Preferred Alternative would protect significant areas of potential waterfowl habitat but would omit important potential enhancement areas in the southern two-thirds of PU 16. The USFWS will use this information in its decision-making process.

LAND USE

Open Space

Many of the public comments on the draft EIS submitted by private individuals and members of conservation groups addressed the issue of open space. The vast majority of these comments cited the need to preserve open space as a reason for supporting the Stone Lakes NWR project.

Many commenters identified the Stone Lakes project as an especially important opportunity to preserve open space in a rapidly growing urban area. Comments indicated

that it is important to preserve open space not only in Sacramento County, but throughout California; these commenters were concerned with the cumulative loss of open space lands in the state. Commenters compared the Sacramento area to the Los Angeles and San Francisco Bay areas; because the Sacramento urban area is growing rapidly, open space preservation is necessary to avoid the extensive urbanization that has occurred in Los Angeles and San Francisco. Other commenters stated that the Stone Lakes project would provide open space benefits similar to those of the East Bay Regional Parks system and that the NWR is needed because the only large areas of open space in the county are Folsom Lake and the American River Parkway.

Commenters indicated that the NWR would preserve open space between communities and provide a greenbelt between the growing urban areas of Sacramento and Stockton.

Commenters cited several other reasons for supporting the project. The refuge is considered an opportunity to preserve open space for future generations, and open space preservation is believed to contribute to the quality of life and provide mental and physical health benefits.

As noted in Chapter 4H, "Affected Environment: Land Use and Aesthetics", most land in and around the study area is designated for open space uses in the Sacramento County general plan. General plan open space designations for lands in the study area include Agricultural-Cropland, General Agriculture, Recreational, and Agriculture-Recreation Reserve. The final EIS acknowledges the beneficial impacts of the Stone Lakes project in preserving and protecting open space land uses; implementation of any of the NWR alternatives, including the Mitigated Preferred Alternative, would generally be consistent with the general plan.

Urbanization

Many commenters addressed the issue of urbanization in their comments on the draft EIS. Most of these commenters were private individuals, many of whom identified themselves as long-time residents of Sacramento County.

Commenters expressed support for the Stone Lakes NWR project because of urban development pressures on wildlife populations and habitat.

Many commenters were concerned with the development pressures in both Sacramento County and all of California. These commenters supported the NWR for reasons such as the following:

- the project would prevent uncontrolled suburban growth that cannot be accommodated by the current infrastructure of the region;
- urban development in the study area would diminish the quality of life;

- the project would balance the rapid growth of development with the need to preserve and restore wildlife habitat;
- the refuge would provide a barrier to the impending merger of Sacramento and Stockton suburbs;
- the Stone Lakes study area contains important habitats that are threatened by agriculture and housing development in one of the fastest growing regions in the country;
- the refuge would be a step in slowing the development of all land in California; and
- the project would stop pressure to build in the floodplain.

One commenter observed that it would be to the advantage of those who want to continue to farm to have some protection from development pressure and to be in an area that is not fragmented by development, but is generally dedicated to open space.

Many commenters expressed the concern that the lands in the study area need to be protected now because development is otherwise inevitable. These commenters stated their opinions that no action will guarantee the development of the farmland; the small group of farmers objecting to the project will eventually sell their land at tremendous profit for development; and the profit margin should not be the only measuring stick for the best and highest use of the land. One commenter expressed the opinion that what land is acquired now may be all that is ever saved.

Other commenters addressed the impacts of urbanization on natural habitats and wildlife populations. These comments noted that 95% of the Central Valley's original wetlands have been converted to urban uses and farmland, and wildlife is being crowded into smaller pockets of suitable habitat. Many of these commenters supported Alternatives D or E based on the rationale that small refuges surrounded by urban and other intensive uses are not as effective in meeting the needs of wildlife as larger areas; the surrounding human population and their activities usually lead to degradation of smaller preserves and refuges. Larger refuges provide a wider range of habitat and far greater buffering from outside sources of disturbance.

The analysis of the No-Action Alternative in the final EIS evaluates the potential for urban or other types of development in the Stone Lakes study area. The analysis assumes that there would be no change in existing management direction for lands in the study area under the No-Action Alternative. The existing management direction is provided by the Sacramento County general plan, which provides a broad outline of future land use patterns, and the zoning ordinance, which specifies the land uses that are permitted or prohibited in each zoning district.

The lands within the boundaries of the Stone Lakes study area are designated and zoned for agricultural, recreational, and large-lot, rural residential uses. The final EIS concludes, based on existing management direction, that most lands in the study area would continue to be used for the production of agricultural commodities. Some natural or agricultural areas could be converted to other uses, such as more intensive agricultural uses. Proposed development projects would require amendment of the general plan, approvals and permits from state or local agencies, and environmental review to comply with the California Environmental Quality Act (CEQA). The final EIS identifies these impacts as potentially significant under the No-Action Alternative.

RECREATION

Many public comments on the draft EIS addressed recreation issues. Most of these comments were from the boating community, including recreational boaters, boating organizations and clubs, and marina and other boating-related business owners and operators. Many of the boaters commenting on the draft EIS indicated that they have used the waterways in the southern part of the study area for many years. Others commenting on recreation issues included residents of the Laguna Creek and Elk Grove area and members of conservation organizations. A list of organizations commenting on the draft EIS is included in Chapter 5, "Responses to Specific Comments on the Draft EIS from Organizations and Individuals", of this document.

Agencies commenting on recreation issues included The Resources Agency, Department of Boating and Waterways; The Resources Agency, Department of Conservation, Office of the Director; SLC; and City of Isleton.

Comments were submitted in individual letters, form letters, petitions, and oral testimonies at public hearings.

The following sections summarize and respond to the major recreation issues raised in public comments.

Accuracy of Boating Recreation Information and Impact Analysis Presented in the Draft EIS

Many commenters indicated that the description of existing boating resources and activities in the study area presented in the draft EIS is inaccurate and that consequently the evaluation of impacts, and the assessment of the significance of those impacts, is also flawed.

Commenters stated that the draft EIS does not accurately describe existing boating activities and use patterns on the major sloughs in the study area and the quality of these opportunities.

The Meadows, Snodgrass, Locke, Railroad, and Lost Sloughs were repeatedly identified as heavily used boating areas and were described as natural, scenic, quiet, and outstanding houseboating, fishing, and swimming areas. These areas were also described as important for wildlife. Commenters stated that these areas are known as some of the best boating areas in the western United States, and that prohibiting or restricting boating uses would be devastating to the recreational boating community. Some commenters submitted copies of published articles about these areas.

The draft EIS identified the Sacramento River as a viable alternative for recreation uses, such as motorized boating, jetskiing, and waterskiing, that could be displaced because of management restrictions in the NWR. Many commenters disagreed with this evaluation and pointed out that the river's unsafe currents and heavy boating traffic make it unsuitable for these types of recreational activities.

Commenters indicated that the draft EIS does not provide a true picture of the numbers of boaters and boating traffic using study area waterways and that prohibiting or restricting existing recreational boating on waterways in the study area would displace many recreationists. For example, commenters stated that more than 150,000 people (one individual stated this in terms of two million man-days) use the Delta Meadows area for recreational purposes. Citing the high visitor use associated with boating in these areas, commenters disagreed with the evaluation in the draft EIS that impacts on boating uses would be less than significant under the various NWR alternatives.

The USFWS has responded to these concerns in the final EIS in four ways: first, the USFWS contacted members of the boating community and local agencies to better define the boating issues and concerns and to correct inaccurate information presented in the draft EIS. Contacts included the Northern California Marine Association, SLC, California Department of Boating and Waterways, marina owners, Sacramento County Department of Parks and Recreation (SCDPR), California Department of Parks and Recreation (DPR), Sacramento County Sheriff's Department, and recreational boaters.

Second, the refuge management and administration discussion has been expanded in Chapter 3A, "Alternatives Including the Mitigated Preferred Alternative", of the final EIS to better describe typical NWR boating management and regulation and clarify the assumptions made for the analysis of the refuge alternatives. Snodgrass, Meadows, Railroad, Locke, and Lost Sloughs are navigable waterways under the jurisdiction of the SLC. The USFWS would not seek to regulate boating uses on these waterways, which would continue to be regulated by Sacramento County ordinance.

The final EIS clarifies that some motorized boating uses, such as waterskiing and power boating, on small lakes, ponds, and other water bodies would most likely be incompa-

tible with the wildlife management objectives of the Stone Lakes project. The USFWS could seek to prohibit or control incompatible boating uses on lakes and ponds owned or controlled by the USFWS. Controls could include speed limits, the exclusion of certain or all uses, restrictions on time of day or season of use, or permits. The USFWS would coordinate with the SLC and other responsible agencies (i.e., SRCSD and SCDPR) to determine the extent of the state's ownership and interest in these water bodies. If the SLC determined that the state owns these water bodies or retains a public trust interest, the USFWS could apply for a long-term lease to include the state's public trust lands in the NWR.

Third, the description of existing boating activities in the Stone Lakes NWR study area has been expanded in Chapter 4I, "Affected Environment: Recreation and Public Access", and the impacts on recreation reevaluated. The expanded discussion describes specific boating uses in various locations in the study area, county boating regulations and law enforcement, and available visitor use data. Based on this additional information, the impacts of the proposed NWR on existing boating activities under Alternatives B, C1, C, D, and E were reevaluated and described in Chapter 5I, "Environmental Consequences: Recreation and Public Access". The final EIS concludes that under any of the NWR alternatives, impacts on existing boating activities would be less than significant.

Fourth, the Mitigated Preferred Alternative excludes major recreational boating use areas from the boundary of the core refuge area, including Snodgrass Slough, Meadows Slough, Lost Slough, Locke Slough, Railroad Slough, and the Cosumnes River. No impacts on existing boating uses in the Stone Lakes study area would occur under the Mitigated Preferred Alternative.

Regulation and Management of Boating Uses

Many commenters were concerned with regulating and managing boating uses in and adjacent to a NWR and indicated that more details are needed concerning where, how, and why existing boating uses would be restricted and managed. The vast majority of the boating community expressed strong support for maintaining the historic boating uses in the study area. Some commenters feel the area should be designated for recreational purposes without federal government intervention. Commenters cited the following reasons for opposition to USFWS involvement in the area: the historic popularity of the area with boating enthusiasts, adequacy of existing boating regulations, maintenance of the area by private boaters, and quality of existing wildlife values.

Commenters indicated that the draft EIS does not acknowledge that the best access to the Snodgrass, Lost, and Meadows Sloughs area is by water. Restrictions on motorized boats would limit most access, and access for people of limited physical ability would be virtually impossible. Commenters noted that public support for environmental actions will cease if the actions prevent access to protected areas. Other commenters expressed the

opinion that restricting or prohibiting boating would greatly decrease the value of the area for recreation.

Many commenters stated that the USFWS does not have the authority to regulate the state's navigable waters and therefore the Delta Meadows and Lost Slough areas should be excluded from the NWR boundary, or historic boating uses should be allowed to continue.

Some commenters expressed the opinion that assurances from the USFWS that boating would be allowed in the NWR would not be satisfactory for two reasons: USFWS policies are subject to change under different administrations, and the current USFWS refuge policy is to de-emphasize and phase out all nonwildlife, wildland-related recreational activities, such as power boating, swimming, waterskiing, camping, and picnicking.

Some comments on boating regulations were very specific and suggested regulations to limit boating uses that would be compatible with the wildlife management objectives of a NWR. Suggested regulations included the following:

- restrict boating only during the waterbird migration season (i.e., late fall, winter, and early spring); the primary boating season is late spring through early fall, so there would be no conflicts between boating uses and wildlife management;
- expand the no-wake and 5-mph speed zones in the area;
- develop and implement a noise standard to regulate "hot rod" boats;
- implement stay limits or a reservation policy to prevent overcrowding;
- support state legislation to require annual inspection and certification of boats to ensure safe, clean operation.

Some commenters indicated that jet skiing and waterskiing, which are incompatible with existing speed and no-wake zones, should be restricted, leaving the area to those who are there exclusively to relax and enjoy the scenery.

Other commenters did not want any new regulations that would further restrict waterskiing opportunities. For example, one comment indicated opposition to any new speed restrictions for boats less than 22 feet long.

Other commenters mentioned the recently enacted Recreational Vessel Fee Act, which was intended to improve boating areas. Despite the new taxes boaters are paying for improved boating areas, the Sacramento region still lacks inexpensive, accessible anchorage facilities. Restricting use of existing areas was believed to be unfair to taxpaying boaters. The commenters were concerned that anchorage in the Meadows area, which is the best in

the Delta and the only anchorage area with trees, would be eliminated because of the Stone Lakes NWR project.

In response to these issues, the USFWS has expanded the discussion of NWR boating management and regulation in Chapter 3A of the final EIS. The final EIS has been revised to recognize that Snodgrass, Meadows, Railroad, Locke, and Lost Sloughs are navigable waterways under the jurisdiction of the SLC. The USFWS would not seek to regulate boating uses on these waterways, which would continue to be regulated by Sacramento County ordinance. The final EIS also clarifies that the USFWS could seek to prohibit or control incompatible boating uses on Beach Lakes and North and South Stone Lakes. However, because there are no existing public boating uses on these water bodies, the final EIS concludes that under any of the NWR alternatives, impacts on boating activities would be less than significant.

Compatibility of Recreational Boating and Wildlife Preservation and Management

Many commenters from the boating community expressed the opinion that recreational boating is compatible with wildlife preservation and management. Commenters described the Meadows area as supporting thriving wildlife populations that exist side by side with boaters and that have increased in the last 20 years. Commenters indicated that the boating community is committed to preserving the area's environment and that boaters have responsibly maintained and protected the area for years and voluntarily established and enforced speed and no-wake zones to protect nesting grounds and levees from erosion. Protection of certain areas from excessive noise and speed-related damage was believed appropriate and to have already been addressed by the existing boating regulations, but an absolute prohibition of motorized boats was thought to be unwarranted. These commenters argued that the multiple use of the Delta region should be continued because the area can be improved and protected without limiting its recreational uses.

Comments from conservation organizations expressed the opinion that motorized boating is incompatible with the objectives of the Stone Lakes NWR project and that motorized boating should be prohibited in the refuge. These comments indicated that the reasonable alternative would be to exclude the Delta Meadows area from the boundaries of the refuge.

As noted in the discussions of the previous recreation issues, the USFWS has responded to these comments in revising the final EIS and developing the Mitigated Preferred Alternative. The discussion of NWR boating management and regulation has been expanded, and the final EIS acknowledges that the USFWS would not seek to regulate existing boating uses on navigable waterways. The Mitigated Preferred Alternative excludes major recreational boating use areas from the boundary of the core refuge area.

The final EIS also clarifies that the USFWS could seek to prohibit or control incompatible boating uses on Beach Lakes and North and South Stone Lakes. Both

motorized and nonmotorized boating activities can cause direct disturbance of sensitive wild-life species. The impact and significance of the disturbance is dependent on variables such as the amount and time of use. Because there are no existing public boating uses on these lakes and uses on navigable waterways would not be affected, the final EIS concludes that under any of the NWR alternatives, impacts on existing boating activities would be less than significant.

Boating Community Support for the Stone Lakes NWR Project

Many commenters from the boating community agree that the natural values of the Stone Lakes study area need to be preserved; however, they disagree on the method for preservation. Some commenters expressed support for Alternative A1 proposed by the NDC, which would locate the NWR north of Hood-Franklin Road and exclude the major boating use areas. Other commenters suggested that if the Delta Meadows and Lost Slough areas are to be included in the NWR, provision of recreational boating opportunities should be included as a goal of the NWR. Generally, the boating community supports the project as long as the Meadows, Snodgrass, and Lost Slough areas are excluded from the NWR.

The USFWS considered these comments in developing the Mitigated Preferred Alternative. The Mitigated Preferred Alternative excludes major recreational boating use areas from the boundary of the NWR core area, including Snodgrass Slough, Meadows Slough, Lost Slough, Locke Slough, Railroad Slough, and the Cosumnes River.

The USFWS determines the boundary of a NWR based on several factors, including the goals of the refuge project, habitat values, resource conflicts, political boundaries, public interest, state concerns, and input from landowners and other interest groups. The concerns of the boating community will be considered in the USFWS's decision-making process in selecting the final NWR boundary.

Adequacy of Public Involvement and Need for a Supplemental EIS

Many commenters expressed concern that the boating community was inadequately notified during the planning stages for the Stone Lakes NWR project and therefore was unable to attend and participate in meetings and workshops during scoping for the project. Many commenters indicated that the lack of notification and opportunity to provide input early in the planning process was a direct violation of NEPA notification requirements and that consequently a draft supplemental EIS should be prepared and distributed for additional public review and comment.

The issue of the adequacy of the USFWS's public involvement process and the need to prepare a draft supplemental EIS is addressed in the first section of this chapter describing and responding to major issues related to the environmental review process.

General Recreation Benefits of the Stone Lakes NWR

Comments on recreation issues submitted by individuals identifying themselves as members of conservation groups or residents of Laguna Creek and Elk Grove focused on the recreation opportunities other than motorized boating that would be provided by the Stone Lakes NWR. Commenters indicated support for the NWR because the project would provide unique and important opportunities for canoeing, bird watching, hunting, fishing, and nature study. Residents of Laguna Creek support the refuge project because it would provide recreation opportunities for local residents. These commenters favored Alternatives D or E.

Many of these commenters expressed concerns about the compatibility of active recreation uses and the objectives of the Stone Lakes NWR project. Some commenters indicated that they would support the NWR even if all types of recreation activities were restricted or prohibited. Other commenters stated that a balance between agricultural uses, recreational boating, hunting, and fishing is possible.

A major goal of the Stone Lakes project is to provide for environmental education, interpretation, and fish- and wildlife-oriented recreation in an urban setting close to large populations. However, the final EIS clearly states that proposed recreation uses must be compatible with wildlife management objectives. The USFWS will identify compatible recreation uses and areas suitable for public access during the refuge master planning process after specific parcels have been acquired and MOUs implemented.

ENVIRONMENTAL EDUCATION

Many of the public comments submitted by supporters of the Stone Lakes NWR project commented on the environmental education opportunities that would be provided by the project. These comments were primarily from private individuals, many of whom identified themselves as educators, parents, or members of conservation organizations. Many of these commenters expressed support for Alternatives D or E.

Generally, most of these commenters were excited about the educational opportunities that the refuge would offer and the proposed environmental education and visitor complex. Many commenters noted that the proximity of the proposed refuge to two large urban areas, Sacramento and Stockton, offers opportunities for environmental education activities for both primary school and college students; the refuge could function as a "living laboratory".

One commenter questioned the compatibility of the proposed Stone Lakes NWR project's goals. The commenter felt that education and biodiversity are misplaced priorities and that the protection of breeding grounds and migratory route habitats should take precedence.

A major identified goal of the Stone Lakes NWR project is to provide for environmental education in an urban setting accessible to large populations; the goals of the proposed project are outlined in Chapter 1 of the final EIS. The primary purpose of the USFWS's urban refuge policy is to advance public awareness, understanding, and appreciation of the functions of ecosystems and the benefits of their management for fish, wildlife, and people. The goals of USFWS environmental education programs are to promote understanding of the role of management in the maintenance of healthy ecosystems and to motivate citizens to conserve and enhance fish and wildlife resources. However, public use of NWRs, including environmental education uses, must be compatible with wildlife management objectives. The USFWS will identify compatible public uses and areas suitable for environmental education uses during the refuge master planning process after specific parcels have been acquired and MOUs implemented.

AGRICULTURAL RESOURCES

Conversion of Prime Agricultural Land

Several comments were received from landowners, the California Farm Bureau, and agencies concerning the conversion of prime agricultural land and how the impacts resulting from conversion were portrayed in the draft EIS. Some readers of the draft EIS did not note that the document repeatedly identifies the conversion of prime agricultural land as a significant, adverse, and unavoidable impact of implementation of all alternatives other than Alternative A, the No-Action Alternative. This finding is clearly made on pages 5J-26, 5J-36, 5J-44, and 5J-53 of the draft EIS.

In response to concerns regarding the amount of land converted under Alternatives C1, C, D, and E, the USFWS developed the Mitigated Preferred Alternative. Under policy and boundary revisions incorporated in the Mitigated Preferred Alternative, the conversion of prime agricultural land would be substantially reduced compared to conversions estimated to occur under Alternatives C1, C, D, and E.

The size of the NWR would be reduced from approximately 22,000 acres under Alternative C1 to approximately 9,000 acres under the Mitigated Preferred Alternative. In addition, a 9,000-acre CWMA would be established under the Mitigated Preferred Alternative to avoid most conversions of agricultural lands that would occur under Alternative C1. The USFWS would rely on cooperative agreements and the purchase of conservation easements to protect wildlife and habitat values within the CWMA, allowing lands within the CWMA to stay in private ownership and agricultural production.

The evaluation of agricultural land conversion impacts was further modified in the final EIS for all alternatives to incorporate two changes into the analysis.

First, lands in PUs 2, 3, and 6 that have been converted to nonagricultural uses as a result of other agencies' projects (e.g., the Buffer Lands and North Stone Lake Wildlife Refuge) were removed from the analysis. These lands were erroneously included in the conversion analysis in the draft EIS and the conversions attributed to the Stone Lakes NWR project. However, these conversions were incorporated into the trend analysis developed for the analysis of cumulative agricultural impacts included in Chapter 6 of the revised final EIS.

Second, a portion of the lands to be managed by USFWS under conservation easements is assumed to go out of production and, in effect, be converted by the project. The analysis in the draft EIS assumed that no conversions would occur as a result of conservation easements. The conversion analysis in the revised final EIS includes estimates of agricultural land conversions attributable to the effects of USFWS conservation easements.

These changes would reduce the conversion of prime agricultural land from an estimated 1,696 acres under Alternative C1 to an estimated 837 acres under the Mitigated Preferred Alternative. Even with the reduction in converted acreage, however, the conversion of prime agricultural land under the Mitigated Preferred Alternative is still considered a significant, adverse, and unavoidable impact. The estimated conversion acreages for each alternative are displayed in Table 5J-4 in the revised final EIS.

Potential Conflicts between Endangered Species and Agriculture

Farmers and farm interest groups expressed concern that legally protected threatened or endangered plant or animal species could be attracted to the refuge or reintroduced on lands in the refuge as part of the project. The concern expressed is that endangered species could become established on nearby private properties through foraging or nesting activities. Farmers are concerned that once an area is identified as habitat for an endangered species, stringent controls could be placed on the use of pesticides and other farming activities on private properties.

The regulation of pesticide use near endangered species habitat is discussed Chapter 2, "Relationships with Other Agency Programs and Policies", and in Chapter 5E, "Environmental Consequences: Wildlife, Vegetation, and Wetlands", in the final EIS. Pesticide use limitations are regulated by the county agricultural commissioner under policies and guidelines of the U.S. Environmental Protection Agency (EPA) and the California Environmental Protection Agency (CalEPA). These agencies must comply with provisions of the state and federal Endangered Species Act whether or not a wildlife refuge is located in the vicinity of agricultural land.

Table 5E-5 in the final EIS provides a detailed accounting of all possible special-status plants and wildlife that have the potential to occur in the NWR study area now or after NWR implementation. The habitat requirements and typical occurrence of each

species are described, and any potential conflicts with agricultural pesticide use are identified. The analysis summarized in Table 5E-5 concludes that the potential for pesticide use conflicts with listed species that may be present on farmland in the NWR study area has a low probability to occur. This conclusion is based on the following observations:

- most of the state- and federal-listed species are already present throughout the study area during all or part of the year, with little or no apparent conflicts with existing agricultural management;
- most wintering listed species are present in the area only when agricultural management, including pesticide use, is at low levels or does not occur simultaneously; and
- agricultural pesticides are not applied to the primary native habitats of most listed species, which are typically wetlands, oak woodlands, vernal pool grasslands, or riparian forests.

The most likely area of dispute between farm pesticide use and pesticide regulations that protect listed species will focus on the size of buffers separating listed species habitat from the field where an affected pesticide is to be applied. The designation by EPA and CalEPA of minimum buffers for certain pesticides in specific zones, under the authority of the Endangered Species Protection Program to be implemented in 1993, is intended to prevent harmful levels of pesticide drift from occurring outside the intended crop fields.

The NWR is not expected to contribute to additional pesticide drift conflicts that may occur after 1993 because the USFWS is committed to providing internal buffers within the boundaries of the NWR. Existing limitations on pesticide use to control unintentional drift, coupled with NWR buffers surrounding native habitats, especially wetlands, will be adequate to eliminate or minimize potential hazards to listed species exposed to pesticide drift. This would apply even if more individuals or populations of listed species were to occupy restored NWR native habitats in the future.

The USFWS has stated that listed species that are not currently present in the study area will not be intentionally reintroduced to the Stone Lakes refuge. This policy, as well as the provision of internal buffers, was established as part of the Mitigated Preferred Alternative to alleviate the concerns of neighboring landowners.

Buffers

The establishment of buffers adjacent to farmlands was recommended in the draft EIS as mitigation for effects caused by increased pesticide restrictions on farmers operating near or adjacent to refuge wildlife habitat areas, especially wetlands. The draft EIS also indicated that buffers would serve to partially reduce potential effects related to seepage, incompatible land use problems, noxious weeds, wildlife predation, agricultural insect pests,

and increases in local humidity caused by restored wetlands. Comments on the draft EIS by farmers and the Farm Bureau raised the issue that more details are needed concerning buffer location, development, and management specifications. The USFWS has responded to these concerns in the final EIS in two ways.

First, the description of mitigation measure 5J.2, "Establish Internal Buffers Adjacent to Farmlands," has been expanded in the final EIS to clarify the purpose of the buffer and the factors to be considered in the design of site-specific buffers. In the final EIS, mitigation measure 5J.2 states:

The USFWS should establish buffers internal to the Stone Lakes NWR whenever sensitive wildlife habitat areas are developed adjacent to any farmlands other than range and pasture. Buffers should:

- vary in width from 50 to 500 feet depending on refuge habitat and adjacent crop types, with wider buffers established near restored wetlands managed by the USFWS;
- be managed by the USFWS to discourage use by sensitive wildlife and control noxious weeds and agricultural pests; and
- be developed through consultation with the Sacramento County agricultural commissioner's office during the development of the refuge management plan to establish appropriate buffer locations, widths, and management guidelines.

Buffer specifications must be flexible and developed on a site-specific basis to take into account local characteristics such as adjacent crop types, potential pesticide use, wildlife species potentially attracted to particular habitat types, existing natural or created buffers, and other site-specific characteristics. These characteristics should be considered when site-specific buffers are designed as part of refuge management plans.

Buffers should be of appropriate width to ensure that no additional restrictions are placed on the pesticide permits of nearby agricultural landowners. The California Department of Food and Agriculture recommends a 500-foot buffer for Category I pesticides, a 300-foot buffer for Category II materials, and a 50-foot buffer for Category III materials near sensitive environmental features. The Sacramento County agricultural commissioner suggested that a 300-foot buffer around sensitive habitats would be adequate in most cases (Carl pers. comm.). Site-specific widths should be determined through consultation with the agricultural commissioner's office and adjacent agricultural landowners so that no additional restrictions would be placed on nearby property owner's permits because of refuge development. The USFWS should coordinate with the agricultural commissioner's office prior to the final section

of buffer widths in management plans for specific parcels acquired by the USFWS in the future.

The USFWS should be responsible for funding, developing, maintaining, and managing internal buffers. Management guidelines should be developed through consultation with the Sacramento County agricultural commissioner's office. The buffers should be designed to minimize use by sensitive wildlife and maintained to reduce noxious weeds and agricultural insect pests. Buffers should not be used as areas for wetlands restoration nor enhanced or restored to provide wildlife food for sensitive species.

Establishing adequate buffers at appropriate locations within the refuge would substantially reduce the potential for additional pesticide restrictions to be imposed on farmers near or adjacent to the proposed Stone Lakes NWR (Carl pers. comm.). Implementation of this measure would also partially reduce the local humidity effects associated with creating wetlands, decreasing the potential for increased crop mildew.

The involvement of the agricultural commissioner's office is key to the success of this mitigation measure. The agricultural commissioner's office is responsible for enforcing federal, state, and local pesticide regulations. The agricultural commissioner's office has the authority to place restrictions on the use of pesticides near sensitive environmental features such as waterfowl nesting and grazing areas and fish-bearing waters. The involvement of the agricultural commissioner's office in reviewing buffer designs and management guidelines should ensure that development of the proposed Stone Lakes NWR would not result in additional pesticide restrictions being placed on the permits of nearby agricultural landowners.

Because buffers must be designed on a site-specific basis, the draft EIS was not able to identify site-specific buffer specifications. Mitigation measure 5J.2, as revised, should provide the flexibility needed to design adequate buffers for specific areas and to protect adjacent farm operations and other private land uses from increased pesticide restrictions. The environmental effects related to the site-specific designs and management of buffers included in refuge management plans would be evaluated in future NEPA documents prepared by the USFWS for these detailed plans.

In the final EIS, mitigation measure 5J.2 is recommended to mitigate impacts identified under Alternatives B, C1, C, D, and E.

Second, the USFWS incorporated a buffer policy in the project description of the Mitigated Preferred Alternative (Appendix E to the final EIS). This policy states:

In consultation with adjacent landowners, it is recommended that the USFWS establish appropriate buffers on USFWS lands wherever wetland habitats are established next to agricultural lands. Buffers will be managed to avoid

conflicts with adjacent landowners. The USFWS will consult with the Sacramento County Agricultural Commissioner's office during the development of subsequent refuge management plans to establish appropriate buffer locations, widths, and management guidelines. Existing federal, state, and local regulations regarding the use of pesticides and herbicides will apply.

The commitment to establish buffers greatly reduces the potential for increased restrictions on pesticide use under the Mitigated Preferred Alternative.

Seepage

Restoration of natural habitats in the NWR could involve creation of managed seasonal or permanent wetlands. Flooding of refuge lands could result in shallow groundwater seepage onto adjacent nonrefuge farmlands, introducing water and salts into the root zone of perennial, deep-rooted crops such as pears and wine grapes. This could, in turn, cause root rot, salt stress, and other farming problems. This issue was addressed in both Chapter 5D, "Environmental Consequences: Hydrology and Water Quality" and Chapter 5J, "Environmental Consequences: Agricultural Resources".

Many of the comments on the draft EIS concerning potential seepage effects requested more detailed, site-specific information and analysis than was presented in the EIS. Site-specific analysis is not possible or appropriate to this stage of environmental review of the NWR because a facilities site plan and detailed wetlands restoration plan have not been prepared, nor have specific wetland restoration sites been identified. However, the EIS clearly indicates that seepage effects could be possible within the NWR study area, depending on local conditions such as porous soils, shallow water tables, low-relief drainage topography, and limited capacity of local drainage networks.

Conditions that could contribute to local seepage effects are most likely to occur if new wetlands are created on lands below the 10-foot elevation and even more likely below the 5-foot elevation. Lands in these elevation zones overlap lands having a seasonally high water table or poorly drained soils. The coincidence of these overlapping, contributing factors is most likely to be found on lands west of the SPRR grade, which are mostly outside the NWR boundary of the Mitigated Preferred Alternative.

Seepage mitigation conditions set forth in mitigation measure 5D.3 of the final EIS provide a procedure for the USFWS to first identify lands that may be susceptible to seepage effects where wetland restoration is under consideration, and thereafter to conduct a constraints analysis of local soils, water table, and drainage infrastructure. If the constraints analysis suggests the possibility of seepage effects of created wetlands on adjacent private land, the USFWS would design and implement additional seepage capture drains as needed, or modify the design or location of proposed wetlands in the affected area.

Solutions to prevent adverse effects of lateral seepage or higher water tables are commonly employed throughout the NWR study area by local reclamation districts (RDs), flood control agencies, and private landowners. Various effective solutions include installing perimeter seepage interceptor ditches or toe drains, lowering the channel bottoms or width of existing drains, flooding fields only when adjacent cropland is in a fallow condition, or including an adequate buffer of nonflooded land so that lateral seepage does not reach areas of concern. All these and other methods would be employed by the USFWS to ensure the success of mitigation measure 5D.3 during the implementation stage of the NWR.

ECONOMIC AND FISCAL RESOURCES

Indirect Economic Impacts of Boating Restrictions

Substantial concern was raised in public comments from boaters regarding the adverse impacts on recreation that could result from closures of Delta waterways to boating as a result of refuge establishment. Of equal concern were the potential adverse effects on sales by regional merchants who serve the boating community. Such merchants include boat and boating supply dealers, marina operators, proprietors of eating and drinking establishments, grocery store proprietors, and various other retailers.

The USFWS has determined that the proposed refuge would not restrict or impede existing recreational boating in the proposed refuge, regardless of which refuge alternative is implemented. No waterways currently used for recreational boating would be closed to protect wildlife. Consequently, refuge establishment and management would have no adverse effect on boating-related retail sales in the Delta region.

Reduced Property Tax Revenues Resulting from Federal Acquisition of Private Land

Comments from individuals, organizations, and agencies expressed concern that removing private land from the property tax rolls because of federal acquisition would adversely affect tax revenues available to Sacramento County and to special districts located in the refuge area. RDs and resource conservation districts, which serve relatively small areas concentrated in the refuge study area, were identified as the special districts most susceptible to fiscal hardship resulting from reductions in the property tax base.

The federal government reimburses counties in which federal wildlife refuges are located for losses in property tax revenues resulting from federal land acquisitions. The basis for these reimbursements is explained in the final EIS in Chapters 3A, "Alternatives Including the Mitigated Preferred Alternative" and 5L, "Environmental Consequences:

Economic and Fiscal Resources". Whether such reimbursements would fully compensate for foregone property taxes depends on two conditions subject to change over time:

- the proportion of the authorized reimbursement rate that Congress annually appropriates and
- the relationship between assessed value (the basis for property tax assessments) and fair market value (the basis for federal reimbursements) for affected parcels.

As discussed in the final EIS, primarily because average fair market values substantially exceed average assessed values for parcels that could be acquired for the refuge, federal reimbursements are expected to be at least as large as the property tax revenues currently being generated. Furthermore, because the average margin by which fair market values exceed assessed values is expected to increase over time as long as Proposition 13 is in effect, federal acquisitions are expected to have a long-term beneficial impact on funds available to the county and local special districts.

Reduced Farmland Value and Access to Credit Resulting from Threat of Condemnation

Farmers and landowners expressed concern that the possibility of the USFWS acquiring lands within the refuge acquisition boundary through condemnation could affect farmland values and farmers' access to credit. This potential impact is evaluated in the final EIS in Chapter 5L, "Environmental Consequences: Economic and Fiscal Resources".

Lenders could restrict farm improvement loans to landowners within the proposed refuge acquisition boundary. Such restrictions would primarily reflect the lender's increased risk that would result from the possibility that farms could be obtained from unwilling sellers by condemnation before borrowers had fully repaid their loans. The threat of condemnation could affect the amounts lenders are willing to loan on specified parcels, the amount of collateral they require, the types of improvements they are willing to make loans for, and the amount of time available to borrowers to repay loans. Such effects could occur despite the relatively low probability that the USFWS would use condemnation to acquire land for the Stone Lakes NWR. These effects are identified as a significant impact under Alternatives B, C1, C, D, and E; these effects could be reduced to less-than-significant levels if the USFWS formally agreed not to obtain farmland through condemnation.

By creating uncertainty regarding the long-term availability of land for agricultural use, the possibility of condemnation could also reduce the value of farmland within the refuge boundary relative to parcels outside the boundary. Such decreased valuations could reduce the amount lenders would be willing to loan for acquisition of parcels inside the refuge. Whether such changes in the relative value of farmlands inside versus outside the refuge would occur is uncertain. The effects of the possibility of condemnation within the NWR on land value and access to credit for land acquisition thus constitute a potentially significant impact under Alternatives B, C1, C, D, and E. This impact would be reduced

to a less-than-significant level if the USFWS agreed to undertake a multiyear study of relative farmland values inside and outside the refuge boundary, to not obtain parcels by condemnation until after the study is completed, and to avoid acquisitions by condemnation if the study's results show that refuge establishment adversely affects land values within the refuge.

In response to these comments, the USFWS incorporated a policy in the Mitigated Preferred Alternative presented in the final EIS that would limit the use of condemnation to acquire land for the NWR (Appendix E to the final EIS). Under the Mitigated Preferred Alternative, the USFWS would not use condemnation as long as existing or proposed agricultural land uses are consistent with the current 1982 county general plan and September 1990 draft general plan update; the USFWS would not acquire any nonidle farmlands through condemnation. Consequently, lenders would be unlikely to place restrictions on loans for farm acquisition or improvement that would not be applied to parcels outside the refuge boundary. Similarly, appraisers would be unlikely to discount the value of a parcel based solely on its being located within the proposed refuge boundary. Under the Mitigated Preferred Alternative, refuge establishment would have no appreciable effect on farmland value or access to credit.

Indirect Economic Impacts of Agriculture Displacement

Comments submitted by private individuals, agencies, and organizations questioned whether the analysis of the economic impacts of agriculture displacement in the draft EIS adequately assessed the indirect effects of refuge establishment on local and regional businesses that sell goods and services to farmers in the Stone Lakes study area or purchase the crops those farmers produce. Agricultural suppliers most likely to be affected by refuge acquisition would include farm implement dealers and seed and farm chemical suppliers. Crop purchasers most likely to be affected would include manufacturers of food products from sugar beets, tomatoes, and grains.

Indirect impacts of crop displacement on processors and agricultural suppliers were analyzed in the draft EIS and final EIS using the input-output model developed for the Sacramento basin by the University of California Cooperative Extension. This model provides estimates of the average regional change in indirect employment resulting from a unit change in agriculture employment. As reported in Chapter 5L, "Environmental Consequences: Economic and Fiscal Resources", indirect employment losses (i.e., total job losses minus direct job losses) resulting from refuge establishment would range from 5 person-years under Alternative B to 62 person-years under Alternative E. Most of the indirect employment impacts of agriculture displacement would occur among food products manufacturers and agricultural suppliers.

A potential problem with using average regional changes in indirect employment to assess impacts on businesses dependent on farming is that the averages may conceal focused effects on individual businesses. For example, displacement of 100 acres of sugar beet

production would result, on average, in the loss of 1.0 jobs in sugar beet production and 1.1 additional jobs lost throughout the regional economy. Conceivably, however, a small displacement of sugar beet production in the refuge area could cause a regional sugar refinery to close and result in the loss of over 100 jobs.

Managers of regional sugar refineries have found it increasingly difficult to obtain adequate supplies of sugar beets in recent years from farms in Sacramento County. Beet production has historically been limited by the extremely long crop rotations (5-10 years) required to control populations of damaging nematodes in the soil. Additional reasons for the current shortage of sugar beets include the ongoing drought, replacement of sugar beets by tomatoes because of higher tomato prices, and increasing incidence of virus yellows, a serious crop disease. Refineries have responded to the local supply shortage by purchasing beets from more distant farms located primarily in the central San Joaquin Valley. Increased shipping costs and reduced sugar yields from beets grown on more saline soils have reduced the profitability of refinery operations and caused managers to operate the refineries fewer days per year. (Latasa, Sandberg, and Carl pers. comms.)

Whether refuge establishment could induce regional refinery managers to suspend their operations is uncertain. The refineries' current supply areas are extremely large relative to the sugar beet acreage that could be displaced by the proposed refuge, and sugar beets are relatively tolerant of variations in soil quality. Potential beet producers would be unlikely to increase acreage in beet production in response to higher crop prices until a variety resistant to virus yellows becomes commercially available (van Loben Sels pers. comm.).

Processors of tomatoes, corn, wheat, and other grains could also be adversely affected by reductions in crop supplies resulting from refuge establishment. As with sugar beets, however, supply areas for processors of these crops are extremely large relative to the acreages that could be displaced by the refuge. Furthermore, unlike sugar beets, these crops have not been in severely short supply in recent years.

Refuge establishment would have an adverse effect on local farm implement dealers and farm chemical suppliers. For example, for every 1,000 acres of farmland displaced by the refuge, local farm implement sales would decrease by approximately \$25,000 per year (Keene pers. comm.). Sales losses of this magnitude are unlikely to cause a local dealership to go out of business unless a disproportionate share of the total impact were borne by a relatively small dealership or by a dealership in a relatively precarious financial condition. Under Alternative E, for example, which would displace roughly 11,500 acres of cultivated cropland, annual farm implement sales would decline by approximately \$290,000, an amount less than the price of two heavy-tillage tractors.

MOSQUITOS AND PUBLIC HEALTH

Substantial concern was raised in public meetings and in comments on the draft EIS about the potential public health hazards associated with wetlands where mosquitos could breed. The fear is that NWR restored wetland habitats might serve as reservoirs of vectors that may transmit diseases such as malaria or encephalitis. Some commenters suggested a major increase in the populations of mosquitos and the incidence of diseases transmitted by mosquitos if the NWR project is implemented. Some agency commenters, including the Sacramento-Yolo Mosquito Vector Control District (SYMVCD), strongly encouraged the enactment of numerous wetland site planning and design constraints or guidelines to prevent increases in mosquito breeding on NWR lands.

In response to these concerns, the USFWS has added Chapters 4M and 5M, "Mosquito Control and Public Health", in the final EIS. Response to public and agency concerns is treated in considerable detail in these two chapters. Furthermore, under the project description of the Mitigated Preferred Alternative, the USFWS has committed to the preparation of a mosquito suppression plan for the NWR as part of a MOU with the SYMVCD. The specific provisions of a mosquito suppression mitigation plan are described in mitigation measure 5M.1 in Chapter 5M.

Chapter 4M confirms that mosquitos are a potential public health or nuisance hazard in the NWR study area, both under existing conditions and under NWR project implementation. Most severe outbreaks of mosquitos in the past 2 years have occurred on agricultural lands or flood drainage swales over 1 acre, with fewer outbreaks recorded in natural wetland habitats having a high density of aquatic weeds. Larval control measures have been employed in these areas by the SYMVCD.

Chapter 5M identifies the various ways that mosquitoes are encouraged or discouraged by natural, biological, or chemical controls and under what conditions created wetlands would most likely produce mosquitoes, if at all. In some cases, NWR management would be expected to significantly reduce mosquito production occurring under existing conditions on private farmland, especially rice, alfalfa, and irrigated pasture lands.

Most natural habitats, including many wetland types, do not support major mosquito breeding populations because of naturally occurring control mechanisms such as mosquito-eating predators, wave action that drowns fragile larva, or natural larval parasites. The greatest potential for mosquito breeding would occur in seasonal wetlands that remain flooded during the warm season. Numerous control measures recommended by SYMVCD and university researchers have been incorporated into the mitigation measure in Chapter 5M of the final EIS.

Under the Mitigated Preferred Alternative, USFWS would collaborate with the SYMVCD and CVHJV to prepare a MOU with the district that would ensure coordinated efforts to suppress mosquitos on the NWR, including wetlands design criteria and management guidelines.

Chapter 4. Responses to Agencies' Written Comments on the Draft EIS

This chapter contains written comments on the draft EIS received from federal, state, and local agencies and USFWS's responses to those comments. Individual comments are numbered within each agency comment letter. USFWS responses follow each set of comments, and these responses are numbered to correspond with each comment.

Following is a list of agencies commenting in writing.

Federal Agencies

U.S. Department of the Interior, Bureau of Reclamation, Environmental Services Staff
U.S. Environmental Protection Agency, Region 9

State Agencies

California Department of Fish and Game
California Department of Food and Agriculture
California Department of Health Services
California Department of Parks and Recreation, Resource Protection Division
California Department of Transportation, District 3
The Resources Agency, Department of Boating and Waterways
The Resources Agency, Department of Conservation, Office of the Director
The Resources Agency, Department of Water Resources
The Resources Agency, Secretary for Resources
State Lands Commission, Environmental Review Section (duplicated in The Resources Agency submission)

Local Agencies

Courtland Fire District
Florin Resource Conservation District
Isleton City Council
Lodi Parks and Recreation Department

Lower Cosumnes Resource Conservation District
Reclamation District 3
Reclamation District 369
Reclamation District 813
Sacramento City Department of Public Works, Division of Flood Control and Sewers
Sacramento County Agricultural Commissioner and Director of Weights and Measures
Sacramento County and Yolo County, Mosquito Abatement District
Sacramento County Department of Parks and Recreation, Chairman of Recreation and Park
Commission
Sacramento County Department of Public Works, Chief of Water Resources Division
Sacramento County Department of Public Works, Water Quality Division
Sacramento Regional Transit District
San Joaquin County Flood Control and Water Conservation District
San Joaquin County Department of Public Works, Flood Control Division and Public
Transportation Division
Sloughhouse Resource Conservation District
Walnut Grove Fire District



IN REPLY
REFER TO:

D-5510

United States Department of the Interior

BUREAU OF RECLAMATION

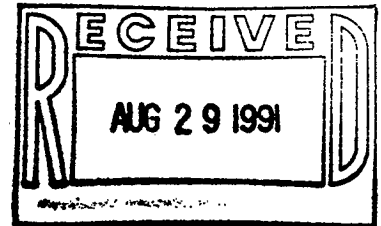
DENVER OFFICE

P O BOX 25007

BUILDING 67, DENVER FEDERAL CENTER
DENVER, COLORADO 80225-0007

AUG 28 1991

TAKE
PRIDE IN
AMERICA



Memorandum

To: Regional Director, Fish and Wildlife Service,
2233 Watt Avenue, Suite 375, Sacramento,
CA 95825-0509
Attention: Peter Jerome, Planning Team Leader

From: Acting Manager, Environmental Services Staff

Subject: Review of Draft Environmental Impact Statement for the
Proposed Stone Lakes National Wildlife Refuge
(DES 91-14) (ACRM-1 91-3276, Due Date
September 1, 1991) (Environmental Review)

We have reviewed the subject document and have the following
comments.

GENERAL

We do not find any discussion of mitigation for adjacent
landowners relating to the impact on their lands from ground-
water withdrawals as a source of water for the refuge. Such a
discussion should be added including considerations of both
groundwater level changes and drainage impacts.

1

SPECIFIC

Table of Contents, page i: The Table of Contents should list
groundwater as a separate heading, beginning on page 4D-14.

2

Page 3B-25, 1st Sentence: The report states that high soil and
substrate(?) permeabilities create a shallow water table. On
page 4C-7, they characterize the area as having poor drainage and
limited permeabilities. This inconsistency should be corrected.

3

Page 3B-25: The discussion about the Shallow Aquifer (with
drainage problems) and the Deep Aquifer (with groundwater
overdraft) needs to be expanded to show either separation or
linkage between the two aquifers.

4

Figures 4D-4A and 4D-4B (following page 4D-10): The legend
titles are very confusing. What is below 5 Ft. Elevation, the

5

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ground surface of the Water Supply Source (as the figure is titled)? There should be a title for the white area east of the shaded areas. "Water Bodies" should be "Surface Water Bodies", or better yet, "Lakes and Surface Water Areas".

5

Page 4D-14, last paragraph: "old riverbank deposits" should be "terrace deposits"; "water table elevations" should be "groundwater elevations".

6

Page 4D-15, paragraph 3: "2 feet per year" of water use should be "2 acre-feet per acre per year".

7

Page 4D-15, paragraph 5, 3rd sentence: Groundwater tables are also strongly influenced by groundwater pumpage and overdraft in the area.

8

Page 4D-15, paragraph 5, 6th sentence: Groundwater levels do not still slope to the west. Groundwater is moving from all directions into the two ground-water cones of depression.

9

Page 4D-15, paragraph 5, 7th sentence: This sentence should be removed. A static groundwater overdraft may indicate an equilibrium but it is a negative, not a desired, equilibrium.

10

Page 4D-18, 1st paragraph: The cones of depression extend to a depth of 40 to 70 feet below the surrounding water table, assuming, as shown in Figure 4D-7, that zero is the surrounding water table elevation.

The seasonal recharge raises the groundwater levels in the cones of depression much greater than five feet. Are they referring to a raise of five feet only along the river? It is not clear.

11

It is true that the cones of depression would not persist if pumping ceased in the area, but pumping will never cease until another source of water is available to the area. The last sentence in this paragraph should be removed.

Page 4D-18, 2nd paragraph, last sentence: The statement that most of the groundwater pumpage is being replenished by long-term recharge is true, but the area is still in long-term overdraft.

12

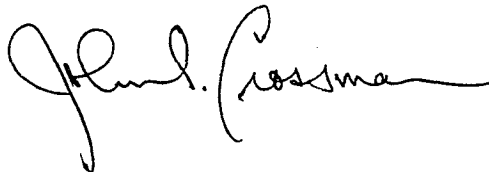
Page 4D-34: Any plan to use groundwater as a source of wildlife water must include site-specific water quality sampling. Many trace metals could be present in amounts above U.S. Fish and Wildlife Service standards. Water quality analyses from nearby areas should not be relied upon for refuge planning. Also, high levels of mercury in nearby wells would preclude the use of this ground-water, unless blended with surface water.

13

Appendix A, page A-9: Answers to the public comments are difficult to locate. Page and paragraph references should be added to Table A-2 to refer readers to the sections of text that address specific areas of concern.

14

Thank you for the opportunity to review this document.

A handwritten signature in cursive script, appearing to read "John L. Crossman".

cc: Deputy Assistant Secretary - Water and Science,
Washington DC, Attention: Chris Kenney

A-4-5

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C-057007

Responses to Comments from the U.S. Department of the Interior, Bureau of Reclamation, Environmental Services Staff

1. Because of the high cost of pumping groundwater and the availability of surface water in the study area, the analysis in the EIS assumes that groundwater would most likely not be used, or used only supplementally, for wetland restoration in the Stone Lakes NWR. Based on this assumption, impacts on the groundwater system would be less than significant. Mitigation for the potential impacts of refuge-related groundwater withdrawals on adjacent landowners are not included in the EIS because no significant impacts on the groundwater system have been identified; mitigation is not required for less-than-significant impacts.
2. Comment noted. The table of contents in the revised final EIS has been expanded to include groundwater in a separate heading.
3. The areas described are poorly drained and for the most part have limited permeabilities. The first sentence on page 3B-12 has been revised in the final EIS to read: "Along the Sacramento River and in the North Delta, levee seepage and poorly drained soils create a shallow water table"
4. This discussion does not need to be expanded. See the response to comment 1 above.
5. Comment noted. The legends on Figures 4D-4a and 4D-4b and text have been revised in the final EIS as suggested. These figures show the general distribution of predominant water supply sources for agricultural uses in the NWR study area, where lands above the approximately 10-foot elevation are supplied largely by a combination of groundwater wells and intermittent tributary flows while lands below the 10-foot elevation are supplied primarily by surface water diversions from the North Delta and the Sacramento River.
6. Comment noted. The final EIS has been revised as suggested. In the first sentence, last paragraph on page 4D-8, change "old riverbank deposits" to "terrace deposits" and in the third sentence, change "water table elevations" to "groundwater elevations".
7. Comment noted. The final EIS has been revised as suggested. The third sentence, second paragraph, page 4D-9, is revised as follows: ". . . 2 acre-feet per acre per year"
8. Comment noted. The final EIS has been revised to replace the last sentence in the fourth paragraph on page 4D-9 with the following sentence: "Groundwater tables are strongly influenced by groundwater pumpage and overdraft in the area".
9. Comment noted. The final EIS is revised on page 4D-9, fourth paragraph, sixth sentence, to read: "Groundwater gradients still slope to the west from the foothills;

however, in the valley, groundwater is moving from all directions into the two groundwater cones of depression".

10. Comment noted. The final EIS has been revised on page 4D-9, fourth paragraph, to delete the last sentence.
11. Comments noted. The following changes have been incorporated in the final EIS. On page 4D-9, revise the last sentence to read: ". . . extending to a depth of 40-70 feet below the surrounding water table, assuming that elevation zero is the surrounding water table elevation".

Revise the remainder of the paragraph to read: "These cones of depression would not persist if the pumping in these areas ceased". Although pumping will never cease until another water source is secured, this statement is accurate.

12. Comment noted. The final EIS has been revised on page 4D-10, first paragraph, last sentence, to read: ". . . by long-term recharge, even though the area is still in long-term overdraft over historical conditions".
13. Comment noted. The final EIS has been revised on page 4D-23 to include the following paragraph at the end of the section: "Any plan to use groundwater as a source of refuge water must include site-specific water quality sampling. However, because of the high cost of pumping groundwater and the availability of surface water throughout the study area, groundwater would most likely not be used, or used only supplementally for wetland restoration in the NWR. If groundwater is used, poorer quality groundwater could be blended with higher quality surface waters to meet predetermined acceptable levels".
14. Table A-2 in Appendix A, "Scoping Report for the Proposed Stone Lakes National Wildlife Refuge Project" of the draft EIS summarizes issues and concerns identified in the EA scoping workshops. The purpose of the scoping process is to clarify the issues to be addressed in the EIS. The USFWS is not required to formally respond to public comments received during scoping. As noted in the response to comment 2 above, the table of contents in the revised final EIS has been expanded to enable readers to find sections of text that address specific areas of concern.

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C-057010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105

August 23, 1991

U.S. DEPT. OF INTERIOR

Peter J. Jerome
U.S. Fish and Wildlife Service
2233 Watt Avenue, Suite 375
Sacramento, CA 95825-0509

AUG 27 1991

U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA

Dear Mr. Jerome:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the proposed Stone Lakes National Wildlife Refuge, Sacramento County. Our comments (enclosed) on this proposed action and DEIS are provided pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality's regulations for implementing NEPA, and Section 309 of the Clean Air Act.

Planning for the Stone Lakes National Wildlife Refuge carries forward the restoration and protection goals set out in the Central Valley Habitat Joint Venture. The DEIS evaluates five alternatives for managing the riverine wetlands and adjacent floodplain lands in a Study Area which includes the portions of Morrison Creek and Cosumnes River drainages. Under the preferred alternative (C1) the National Wildlife Refuge boundaries would encompass approximately 22,000 acres in the Morrison Creek drainage. A "minimum acquisition" alternative (B) would include 13,700 acres in this drainage, while alternatives "D" and "E" would extend into the Cosumnes River floodplain. A major distinction between these two alternatives is that "D" would establish a "Cooperative Wildlife Management Area" along the Cosumnes, relying upon other public agencies and private conservation organizations to acquire and manage the land; "E" would extend the National Wildlife Refuge acquisition boundary to lands in the Cosumnes floodplain. For all action alternatives, National Wildlife Service management options described in the DEIS include cooperative management agreements with public agencies and easements negotiated with private landowners, as well as some fee title land acquisition.

EPA fully supports the establishment of the Stone Lakes National Wildlife Refuge. We believe that there is an urgent need for protection, enhancement, and restoration of wetlands and riverine habitat in the Central Valley and Bay/Delta and regard this proposed action as an important contribution. We have rated the preferred alternative (C1) and DEIS LO-1 (lack of objections, adequate documentation; see attached sheet). We strongly support preferred alternative (C1) as a minimum level of protection and

1

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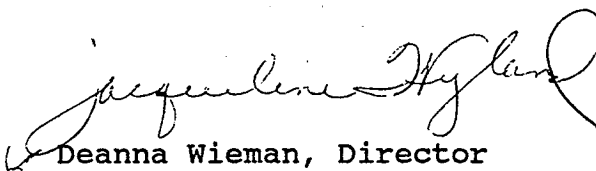
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enhancement, but recommend that serious attention be given to opportunities to extend habitat protection in the Cosumnes watershed as well.

We appreciate the opportunity to comment on this Draft EIS. Please send a copy of the Final EIS to this office at the time it is filed with EPA's Washington, D.C., office. If you have any questions, please call me at FTS 484-1015, or contact Carolyn Yale at FTS 484-1580.

Sincerely,



Deanna Wieman, Director
Office of External Affairs

Enclosures: 3

dcn 000478

cc: William Crooks, Central Valley Regional Water Quality
Control Board
James Moore, Bureau of Reclamation
Robert Potter, Department of Water Resources

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IO—Lack of Objections

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC—Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO—Environmental Objections

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU—Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of environmental quality, public health or welfare. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1—Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2—Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3—Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From: EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

Water Quality and Supply

1. It is essential to ensure that adequate supply and quality of water be provided to the planned Stone Lakes National Wildlife Refuge. The DEIS discusses potential water sources for various "planning units" within the Study Area and indicates that some sources may not provide water of reliably adequate quality. In particular, we note potential water quality problems associated with Morrison Creek (DEIS, p. 5D-27). The Final EIS and Record of Decision should clearly commit the FWS to developing a water quality and supply plan (as outlined in the mitigation discussion, p. 5D-42) as one component of the "second tier" site-specific planning (see p. 1-13). We suggest that, in outlining this plan to assure water quality and supply, the FEIS identify other agencies which are likely to be involved in this effort.

2. The DEIS refers to the recent Inland Surface Waters Control Plan (p. 4D-23), noting that certain agricultural pesticides are not at the present time covered by the Control Plan. This is correct, although as information improves more stringent standards may be adopted. Because of the potential for resuspension of pollutants when historic agricultural lands are inundated, we strongly support a water quality monitoring program.

Related flood control programs

The DEIS does not mention the California Department of Water Resources' proposed North Delta Program (NDP), although the Draft Environmental Impact Report/Statement for the NDP refers to the Stone Lakes Refuge and implies certain connections between the two projects. As you may be aware, the proposed North Delta Program is designed to address flood control, water quality, and water supply in an "improvement area" which overlaps with the Stone Lakes NWR Study Area. We recommend that the Stone Lakes FEIS address the following statements from the North Delta Program DEIR/EIS:

a. "DWR is committed to participate in the Stone Lake Wildlife Refuge to provide mitigation for implementation of the [North Delta Program]" (NDP DEIR/EIS, p. xxvii). Does the Stone Lakes DEIR identify any DWR participation at this planning stage, or in a later implementation phase?

b. "The reduction in flooding [associated with the NDP preferred alternative] could impact the ecological balance in areas historically subject to inundation. The Cosumnes River Preserve and surrounding land and the Beach-Stone Lakes area, which are prime areas for Valley Oak riparian forest and wetlands habitat restoration, may be adversely

impacted by these changes. DWR is committed to mitigating any adverse ecological impacts in these areas that may occur as a result of the proposed project..." (NDP DEIR/EIS, p. xxvi).

4

Relationship to the San Francisco Estuary Project

The San Francisco Estuary Project (SFEP) is engaged in a five-year program designed to characterize the environmental problems of the Bay-Delta and to develop a Comprehensive Conservation and Management Plan to help resolve these problems. SFEP's Management Conference (which encompasses all Project committees and subcommittees) has determined that the "decline of biological resources" is the most critical "management issue" within the Bay/Delta Estuary. This decline may result from environmental degradation related to four other management issues: increased pollutants, freshwater diversion and altered flow regime, waterway modification, and intensified land use.

To further characterize these management issues, SFEP is preparing a series of Status and Trends Reports (STRs). Among the findings of the report on Wetlands in the San Francisco Estuary was that the original 545,400 acres of tidal marshes within the Bay and Delta have been reduced to approximately 44,400 acres. It is understood that the alteration, fragmentation, and loss of this wetland habitat has contributed directly to the decline of internationally important biological resources.

5

In conjunction with the Wetlands STR, SFEP's Wetlands Subcommittee has developed a set of "Goals and Management Options" to address critical wetland protection issues in the Estuary. The four goals for wetlands management are:

1. Protect existing wetlands;
2. Restore and enhance the ecological productivity and habitat values of wetlands;
3. Expedite a significant increase in the quantity and quality of wetlands;
4. Educate the public about the value of wetland resources.

In February 1991 the Management Committee for the SFEP approved a resolution supporting the Fish and Wildlife Service's planning process for the proposed Stone Lakes National Wildlife Refuge (see attached resolution). Further urban encroachment into the Stone Lakes Study Area and expansion of non-compatible agricultural development could threaten the values and functions of the remaining habitat and contribute to the further decline of the Estuary's biological resources.

Related Federal and Local Efforts

On March 28 and July 3, 1991, EPA's Construction Grants Branch approved workplans submitted by the Sacramento Regional County Sanitation District (SRCSD) designed to allocate \$1.75 million from a "Special Fund for Environmental Mitigation" for environmental projects within the Stone Lakes/Cosumnes area. The Fund was established by a special condition included in a Federal wastewater treatment grant. The special condition provides mitigation for impacts associated with urban growth which was enabled by construction of wastewater conveyance facilities.

The environmental projects agreed upon by both SRCSD and EPA are consistent with the implementation of the preferred alternative (C1) in the Stone Lakes NWR/DEIS. The projects, all within the Study Area, include:

- * Reforestation of the Sanitation District's "buffer lands" with native vegetation
- * Restoration of wetlands and uplands bordering Upper Beach Lake and North Stone Lake
- * Acquisition of conservation easements and fee title to land within the Cosumnes River floodplain and the Stone Lakes wildlife corridor

**** RESOLUTION ****
SAN FRANCISCO ESTUARY PROJECT
MANAGEMENT COMMITTEE

SUBJECT:

The Stone Lakes National Wildlife Refuge in Sacramento County being proposed by the U.S. Fish and Wildlife Service.

WHEREAS:

Reversing the decline of biological resources such as wetlands, fish, and wildlife is one of five Management Issues being addressed by the San Francisco Estuary Project (SFEP); and

The freshwater wetlands, riparian forests, and oak savanna that once dominated the eastern boundary of the Delta have been converted to other uses through the expansion of agricultural and urban activities; and

Southern Sacramento County contains remnant examples of rare plant communities in the proximity of the Stone Lakes and the Cosumnes River including vernal pools, native grassland, and one of the finest remaining stands of Valley Oak riparian forest in California; and

The area provides an essential component of the Pacific Flyway and the remnant habitats provide forage, resting areas, and nesting sites critical to the survival of special status migratory birds and other wildlife such as the Greater Sandhill crane, tri-colored blackbird, Swainson's hawk, giant garter snake, California tiger salamander and the valley elderberry beetle; and

The County of Sacramento, California Department of Fish and Game, the U.S. Bureau of Land Management, Ducks Unlimited and the Nature Conservancy are uniting to acquire, protect and restore important habitat along the Cosumnes River on the southern boundary of the proposed Stone Lakes Refuge.

AND WHEREAS:

To protect diverse wetland and upland habitats, the U.S. Fish and Wildlife Service has proposed to establish the Stone Lakes National Wildlife Refuge, relying on a variety of protection strategies and policies such as acquiring property on a willing seller basis; and

The establishment of a National Wildlife Refuge is a demonstrated effective method to preserve and enhance significant habitat; and

The process for establishing a Wildlife Refuge allows for broad based public involvement and full consideration for concerns of diverse interests including those of the affected property owners in determining Refuge boundaries and land use within the Refuge; and

The value of protecting this significant wildlife habitat includes creation of opportunities for environmental education and interpretation, due to its close proximity to urban areas; and


The goal of SFEP to "restore and maintain the chemical, physical and biological integrity of the estuary" will be furthered by the successful establishment of the Stones Lake National Wildlife Refuge.

THEREFORE, BE IT RESOLVED:

The San Francisco Estuary Project supports the planning process concerning the establishment of the Stone Lakes National Wildlife Refuge, in a manner that will confer the highest degree of protection possible for species and habitat diversity, while adequately considering the concerns of diverse interests and acquiring property from willing sellers.

This resolution was adopted by the SFEP Management Committee on 22 February 1991.

Harry Seraydarian


Chair
Management Committee

Responses to Comments from the U.S. Environmental Protection Agency, Region 9

1. Comments noted. EPA's support of Preferred Alternative C1 as a minimum level of protection and enhancement, and recommendation to consider habitat protection for the Cosumnes watershed is noted.
2. Comments noted. The suggested water quality program is described in detail for recommended mitigation measure 5D.9, "Develop and Implement a Water Quality Control Program for the NWR." Other agencies to be involved in this program are identified in the "Water Quality Monitoring" discussion for mitigation measure 5D.9.

EPA's recommendation that the USFWS Record of Decision (ROD) for the Stone Lakes NWR project clearly commit to developing a water quality and supply plan as one component of the second-tier site-specific planning for the project is also noted.

3. Comment noted. The discussion of the Inland Surface Waters Control Plan has been expanded in Chapter 4D, "Affected Environment: Hydrology and Water Quality", of the revised final EIS.
4. The draft EIS includes a discussion of the DWR's North Delta Water Management Program in Chapter 2, "Relationships with Other Agency Programs and Policies" (page 2-2). In this section, the EIS states: "Plans for the proposed Stone Lakes NWR should be coordinated with DWR". In addition, mitigation measure 5D.6 on page 5D-31, paragraph two, states: "a refuge levee maintenance program must be developed that is coordinated and agreed on by . . . DWR".

In response to EPA's comment, the final EIS is revised as follows.

Revise the first sentence of the third paragraph, page 2-2, to read: "The California Department of Water Resources (DWR) is proposing to implement the North Delta Water Management Program, which is one of three water management programs addressing Delta and statewide issues, including flood control, water quality improvement, reverse flow problems, and State Water Project reliability."

Insert the following sentence before the last sentence, paragraph 3, page 2-2: "DWR is committed to participate in a Stone Lakes refuge to provide mitigation for implementation of the North Delta Program where appropriate (California Department of Water Resources 1990)."

Insert the following paragraph on page 5D-13: "The NWR would have minor hydrologic effects on the lower Cosumnes River and Beach/Stone Lakes areas, particularly downstream of Lambert Road. However, the reduction of historically flooded areas and the changing of floodwater levels associated with the DWR's North Delta Program could affect the hydrology of these areas".

5. The San Francisco Estuary Project Management Committee's February 1991 resolution in support of the Stone Lakes NWR planning process is noted.
6. The information provided by the commenter has been incorporated in the discussion of the SRCSD Buffer Lands in Chapter 3A, "Alternatives Including the Mitigated Preferred Alternative", of the final EIS.

Memorandum

To : The Honorable Douglas P. Wheeler
Secretary for Resources
Resources Agency
1416 Ninth Street
Sacramento, California 95814

Date : August 1, 1991

From : Department of Fish and Game

Subject : Draft Environmental Impact Statement (EIS) for Stone Lakes
National Wildlife Refuge (SCH 91064004)

The Department of Fish and Game (DFG) has reviewed the Draft EIS for the proposed Stone Lakes National Wildlife Refuge (NWR) located in the southern portion of Sacramento County east of the Sacramento River and including portions of the Cosumnes River drainage. The project area is bounded by Freeport and Elk Grove at the north and Walnut Grove and Galt to the south. Final boundaries are one of the Draft EIS subjects.

The refuge proposed by the U.S. Fish and Wildlife Service (USFWS) would provide consumptive and nonconsumptive uses including educational and interpretive programs, nature tour routes, hunting, and other benefits to nearby urbanized areas. The proposed refuge establishes needed protection and preservation of wetland, riparian, upland and agricultural lands used by wildlife. The refuge would secure habitat for several State- or Federally-listed threatened or endangered species and many other plant and animal species of special concern to the DFG. The refuge would advance the goals of the North American Waterfowl Management Plan and its implementation program, the Central Valley Joint Venture, to provide for increased population levels and distribution of waterfowl and migratory birds. Further, the expanded refuge alternatives could preserve one of the last remaining undeveloped flood plains in the Central Valley of California.

Six project alternatives would secure up to 74,238 acres through fee title, conservation easements, and cooperative agreements with other land management agencies on existing public land managed through Memoranda of Understanding (MOUs). No project (Alternative A), a minimal refuge project (Alternative B), and the original proposed project (Alternative C) provide increasing levels of protection as acreage of acquired land increases. Alternative C1, a modification of C, is the new preferred alternative of the USFWS. Alternatives D and E offer the highest degree of protection, preservation, and enhancement of wildlife habitat.

The Honorable Douglas P. Wheeler
August 1, 1991
Page Two

The following comments have been prepared by the DFG as the agency exercising administration over the fish and wildlife resources of California under the authority of and in accordance with the provisions of the Fish and Wildlife Coordination Act (43 Stat. 401, as amended; 16 U.S.C. 661, et seq.). These comments recommend measures for the conservation and prevention of damage to fish and/or wildlife resources of the State.

The DFG concurs that the minimal refuge plan, Alternative B, would least preserve, enhance, and protect the wildlife and wildlife habitat present in the project area. The fact that 39 State and Federal candidate, listed threatened, or endangered species can find suitable habitat within the overall project boundary speaks to the unique value of this area and that these species are in danger of further decline as availability of wetland, riparian, and flood plain habitat is reduced.

The DFG agrees that Alternative C1 is preferable to Alternative C, the original proposed action. Excluding two planning units (PUs) of high agricultural value reduces the loss of prime farmlands and agricultural revenue, while only reducing the size of the proposed refuge by about 2,300 acres to 22,000 acres (Alternative C1). Alternative C1, the USFWS preferred alternative, represents the least or minimal protection that the DFG would be as prudent under this resource. A total of 6,499 acres would be operated under fee title, and 2,700 acres would be under conservation easement as proposed in Alternative C1. Remaining acres are nonparticipating lands. Nonparticipating lands are dairies, orchards, vineyards, roadways, commercial properties, and other existing development within project boundaries.

Alternative D expands the refuge by almost 21,400 acres of quasi-public land managed as a Cooperative Wildlife Management Area (CWMA), thereby providing 52,710 acres of wildlife habitat. This proposal includes the same amount of land acquired by the USFWS through fee title as proposal C, therefore, most of the increased refuge size comes from other Federal, State, county, and private lands managed under MOUs and by conservation easement. A total of 19,329 acres would be operated under MOUs, 9,167 acres acquired by fee title, and 11,493 acres would be under conservation easement as proposed in Alternative D. Remaining acres are nonparticipating lands.

Alternative E reverses this strategy and procures about three times the land via fee title as acquired in alternatives C and C1. Increased acreage of land held under conservation easement provide the bulk of remaining refuge expansion with proportionately small increases in lands managed by MOUs with

A-4-20

The Honorable Douglas P. Wheeler
August 1, 1991
Page Three

reference to alternatives C and C1. A total of 8,841 acres would be operated under MOUs, 25,279 acres acquired by fee title, and 19,069 acres would be under conservation easement as proposed in Alternative D. Remaining acres are nonparticipating lands.

It was noted that although PUs 5 and 11 were deleted from Alternative C to formulate Alternative C1, these units were retained in alternatives D and E. Additionally, PU 12, valuable farmland near Courtland, was added to Alternative E. The DFG assumes that the same reasons and logic for formulating Alternative C1 would result in scaled-down versions D1 and E1. The unavoidable adverse affects related to acquisition and management of those prime agricultural areas would be reduced and may affect the outcome of decision making for the proposed refuge.

The DFG assumes that PU 12 might be excluded from Alternative E (or E1) if the same reasoning for Alternative C1 is applied. PU 12 contains large vineyards, electric power transmission lines, a radio and television transmission tower, and lies above the 100-year flood plain. Exclusion of PU 12 would reduce the refuge by nearly 6,000 acres under Alternative E, but would reduce adverse project impacts as well.

The DFG is concerned over the loss of riparian habitat and riparian corridors that provide migratory routes and access for many species. The Swainson's hawk, State listed as threatened, is particularly impacted by loss of nest trees and adjacent farmland that provides foraging habitat. Continued development along rivers removes the needed foraging habitat and, although nest trees may remain, breeding Swainson's hawks are displaced. For this reason in particular, and for the benefit of many other species, the DFG recommends that all or portions of the Cosumnes River flood plain be included in the Stone Lakes refuge. The Cosumnes River flood plain contains valuable nesting and foraging habitat and provides a corridor for movement and expansion of existing Swainson's hawk breeding range in the Central Valley.

Table 6-5 of the Draft EIS indicates that highest attainment of the goals of the Stone Lakes NWR can only be met by including the Cosumnes River in the project (alternatives D and E). If the Cosumnes River is not included, full attainment of refuge goals and value will not be achieved for the following refuge goals:

1. Preserve, restore, and enhance a diverse assemblage of native Central Valley plant communities and their associated fish, wildlife, and plant species.

The Honorable Douglas P. Wheeler
August 1, 1991
Page Four

2. Preserve, restore, and enhance habitat to maintain and assist in the recovery of rare, endangered, and threatened plants and animals.
3. Create linkages between refuge habitats and habitats on adjacent lands to reverse past impacts of habitat fragmentation on wildlife and plant species.
4. Coordinate refuge land acquisition and management activities with other agencies and organizations to maximize the effectiveness of refuge contributions to regional habitat needs.
5. Provide for environmental education, interpretation, and fish- and wildlife-orientated recreation in an urban setting accessible to large populations.

Alternative C1 would provide the fundamental unit of Stone Lakes NWR. Because each PU has been evaluated for its benefits and costs, they may be ranked by their relative contribution to the goals and wildlife values of the ultimate NWR. The DFG recommends that the preferred alternative C1 be selected, but that additional PUs be acquired in order of their contribution to achieving overall refuge goals, ultimately achieving the boundaries of Alternative E (except PUs 5, 11, and 12). If funds in excess of those required by Alternative C1 are available, additional PUs can be acquired concurrently. Other PUs could be acquired as funding allows. The best combination of acquisition methods should be employed by the USFWS, and other public entities should be allowed to participate using the best form of acquisition on a case-by-case basis for each identified PU of value. Quasi-public PUs should be managed as per the CWMA and MOUs.

Several pending factors could assist this process. A program similar to the Federal Water Bank program is being developed by the State. State guidelines for Wetland Mitigation Banking are also being developed. County and local governments are seeking innovative and positive means of mitigating for development. Some counties are already developing habitat conservation plans, wetland mitigation banks, and other means of approaching mitigation needs on a regional basis. A combination of State, county, and local government efforts could assist the USFWS in achieving maximum benefits for wildlife resources in California and the Pacific Flyway.

If we can be of further assistance, please contact Mr. David Zezulak, Associate Wildlife Biologist, or

A-4-22

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C-057024

The Honorable Douglas P. Wheeler
August 1, 1991
Page Five

Mr. Jerry Mensch, Environmental Services Supervisor, Department
of Fish and Game, Region 2, 1701 Nimbus Road, Rancho Cordova,
California 95670, telephone (916) 355-7030.

Howard A. Sarasohn for

Pete Bontadelli
Director

A-4-23

C - 0 5 7 0 2 5

C-057025

Responses to Comments from the California Department of Fish and Game

1. Comment noted. No response necessary.
2. Comment noted. No response necessary.
3. DFG's comment that PUs 5 and 11 could be deleted from Alternatives D, and PUs 5, 11, and 12 deleted from Alternative E to reduce unavoidable adverse impacts related to conversion of prime farmland is noted. USFWS will consider this comment in the decision-making process.
4. DFG's comments that the Cosumnes River floodplain contains valuable nesting and foraging habitat for the Swainson's hawk and provides a corridor for movement and expansion of the species' breeding range in the Central Valley is noted. The Swainson's occurrence in the Cosumnes River corridor is noted on Tables 4E-4 and 5E-2.
5. DFG's comment that the highest attainment of the goals of the Stone Lakes NWR project can only be met by including the Cosumnes River in the project is noted. The USFWS will consider this comment in the decision-making process.
6. Comment noted. DFG's support of Preferred Alternative C1 and recommendation to acquire additional PUs included in Alternative E (except PUs 5, 11, and 12) is noted.
7. USFWS recognizes that an established mitigation bank site in the Stone Lakes study area could maximize wildlife habitat benefits. This topic is discussed in Chapter 2, "Relationships with Other Agency Programs and Policies" (page 2-12) of the EIS.

Memorandum

To : Mr. Russ Colliau
State Clearinghouse
Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, California 95814

Date : August 14, 1991
Place : Sacramento

From : Department of Food and Agriculture --1220 N Street
Sacramento, CA 95814

Subject: SCH No. 91064004 -- Stone Lakes National Wildlife Refuge

The California Department of Food and Agriculture (CDFA) has reviewed the Draft Environmental Impact Statement (DEIS) concerning the above referenced project and has the following comments and recommendations.

The Preferred Alternative (C1) of the project at completion would result in the conversion of 8,457 acres of agricultural land, including 2,793 acres of prime farmland, resulting in the loss of approximately \$2.4 million of agricultural production. As stated in the DEIS, these are considered significant, adverse, and unavoidable impacts.

The Preferred Alternative (C1) is a modification of Alternative C, which reduces some of the adverse agricultural impacts. However, Alternative C1 is not specifically discussed in the document, except briefly in the Executive Summary. It would be helpful if Alternative C1 is discussed in detail in the document as are the other alternatives.

A group of local farmers is working to establish the North Delta Conservancy. Another potential project alternative, or potential mitigation measure to reduce impacts to agricultural land would be for the Fish and Wildlife Service to support establishment of the Conservancy and work closely with the Conservancy to acquire land for the refuge.

Loss of agricultural production is estimated to be \$2.4 million for Alternative C1 and nearly \$3 million for Alternative C. How, then is the amount of \$1.4 million for Alternative C determined in the bar graph on page 17? Similarly, figures cited in tables 5J-3, 5J-10, and 5J-12 show farm losses more than double those listed in the graph on page 17. Furthermore, these figures are direct farm commodity reductions and do not account for the economic multiplier effect of agriculture as a basic industry contributing to the local economy. This multiplier ranges from 2 to 7, with 3 used as a reasonably conservative value. Using an economic multiplier of 3 and a reduction of farm sales of \$2.4 million for Alternative C1 and \$3 million for Alternative C, result in a loss to the local economy of \$7.2 million and \$9 million respectively.

A-4-25

Figure 4D-9 shows irrigation and drainage facilities as developed in 1963. Is more recent information available? If so, it should be included. There have probably been many changes in nearly 30 years.

In the discussion of Williamson Act Lands, a map showing parcels in and adjacent to the study area would be very helpful. The map should also delineate the boundaries at least for Alternative C1, if not for each alternative. The project may result in non-renewal or cancellation of Williamson Act contracts on parcels adjacent to the refuge if farming practices such as aerial and ground spraying are restricted. Adequate buffers on refuge land could mitigate this impact.

Mitigation measure 5J.2 does recommend buffers on refuge land, ranging in width from 300 to 500 feet. Buffer requirements can vary substantially depending on many factors, including but not limited to farming practices, topography, wind speed and direction, and adjacent use. The 300 to 500 foot range should not be considered as firmly established.

The reference to the location within the document of employment and income impacts on page 5J-2 is incorrect. It should be Chapter 5L, "Environmental Consequences: Socioeconomic and Fiscal Conditions".

The pie chart on page 15 of the Executive Summary is incorrect. The total value of agricultural commodities for Sacramento County was \$216 million, not \$102 million. The dollar values are incorrect and livestock and nursery products are not included.


In Section 5A, page 5A-2, regarding air quality, the document states "Farming operations and agricultural waste burning are sources of substantial PM_{10} in Sacramento County (Table 4A-3)." Referring to the cited table reveals that these two sources represent 5.2% of PM_{10} emissions. This percentage should be substituted for the word "substantial" in the document.

The proposed project as described in the DEIS is very vague. No specific plan is put forth regarding amount and location of seasonal and permanent wetlands. In numerous places in the document it is stated that due to the lack of detail regarding refuge facilities, management proposals, etc., only a general discussion could be presented. This lack of detail is a major concern to farmers and other land owners in the area. The CDFA recommends that the Fish and Wildlife Service work with local individuals and groups, to develop a clear and detailed management plan with full public input and environmental review.

A-4-26

Stone Lakes National Wildlife Refuge DEIS
Page 3
August 14, 1991

Thank you for the opportunity to comment on the DEIS. Please keep the CDFA informed as the proposed project continues to develop.


Steve Shaffer
Research Analyst
(916) 322-5227

STATE OF CALIFORNIA
FOOD AND AGRICULTURE
1220 N ST.
SACRAMENTO, CA 95814

cc: Peter Jerome, USF&WS
Frank Carl, Sacramento County Agricultural Commissioner
Patricia Gatz, California Department of Conservation
California Association of Resource Conservation Districts

A-4-27

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C-057029

Responses to Comments from the California Department of Food and Agriculture

1. Comment noted. The final EIS has been revised to include a detailed analysis of Preferred Alternative C1, as well as an additional alternative, the Mitigated Preferred Alternative. All alternatives considered in the final EIS are described in the same level of detail.
2. The goals of the proposed Stone Lakes NWR project are stated on page 1-7 of the final EIS. One of the goals is to "coordinate refuge land acquisition and management activities with other agencies and organizations to maximize the effectiveness of refuge contributions to regional habitat needs". Within the NWR acquisition boundary, the USFWS would seek to acquire a sufficient interest in lands to accomplish refuge goals. Lands within the boundary that are in a protected status consistent with the overall refuge goals would not be considered a high priority for acquisition. Factors considered important in determining protected status would include commitment to perpetual, nondevelopment covenants; habitat restoration and enhancement objectives; and migratory bird foraging and sanctuary requirements. If the North Delta Conservancy, or any other landowner, private organization, or agency, can accomplish these goals in the NWR area, USFWS acquisition may not be necessary. Any property enrolled in such a program would not be considered part of the NWR, but would be managed as a component of a cooperative wildlife management area. Such areas could be managed to preserve and enhance both agriculture and wildlife values.
3. The \$1.4 million figure on the bar graph on page 20 of the executive summary for the draft EIS represents the change in farm income, not farm production value, for Alternative C. Farm income is the share of farm production value that accrues to farm workers and farm owners in the form of wages, profits, or rents. For the crops grown in the study area, farm income accounts for 40%-62% of farm production value (see Table 5L-6 of the final EIS).
4. The commenter is correct that the irrigation and drainage facilities map is out dated. However, the map represents the best available data at this time.
5. A map showing the location of lands under Williamson Act contracts within and near to areas included within project alternatives is incorporated in the final EIS. Estimates of Williamson Act acreage converted by implementation of the project alternatives were presented in the draft EIS in Chapter 5J, "Environmental Consequences: Agricultural Resources." This information has been expanded to include the Mitigated Preferred Alternative in the final EIS. The following table summarizes estimated direct impacts on Williamson Act lands.

Summary of Impacts on Williamson Act Lands

<u>Alternative</u>	<u>Estimated Total Williamson Act Acreage</u>	<u>Estimated Acreage Converted</u>
Alternative A	970	0
Alternative B	4,530	1,468
Alternative C1	10,990	4,139
Alternative C	12,170	4,584
Alternative D	14,180	4,584
Alternative E	55,680	18,959
Mitigated Preferred Alternative	8,130	1,539

Estimates of amounts of land in the various Williamson Act land categories under each alternative were not prepared because the conversion of lands under Williamson Act contracts, and the termination of these contracts, would be consistent with the goals of the act. As stated in Section 51293(a)(2) of the act, "a public agency or person may be allowed to acquire prime agricultural land covered under contract if the public works are required for fish and wildlife enhancement and preservation."

6. Comment noted. The widths of buffers may need to deviate from the size range suggested in the draft EIS. The buffer issue is discussed in detail in the agricultural resources section of Chapter 3, "Responses to Major Issues Raised in Public Comments on the Draft EIS."
7. The commenter is correct. The final EIS has been revised to incorporate this correction.
8. The commenter is correct that the pie chart on page 18 of the draft EIS executive summary showing total agricultural production in Sacramento County contains errors and omissions. A corrected version, expressing the value of agricultural production in 1989 as shown in Table 4J-2 of the EIS, is included in the executive summary of the final EIS.
9. Comment noted. The final EIS has been revised as follows. Delete the last sentence in the first full paragraph on page 5A-2 and replace it with the following: "Sacramento

County PM₁₀ emissions are generated by a variety of sources, including entrained road dust from paved sources (63%), construction and demolition (25%), and farming operations (5%). Agricultural waste burning represents 0.4% of county PM₁₀ emissions".

10. The purpose of the EIS is to evaluate the environmental impacts of USFWS land acquisition alternatives to establish the Stone Lakes NWR. The analyses are intended to assist USFWS in identifying the acquisition alternative that would best meet the goals and purposes of the project. After land has been acquired, site-specific restoration plans can be developed based on the characteristics and capabilities of the lands acquired. Environmental review of specific projects is required to comply with NEPA.

The commenter's recommendations that the USFWS seek public input, work with local individuals and groups to develop a detailed management plan for the NWR, and conduct an environmental review of the proposed plan are noted.

DEPARTMENT OF HEALTH SERVICES

714/744 P STREET

P.O. BOX 942732

SACRAMENTO, CA 94234-7320

(916) 445-0498



U.S. DEPT. OF INTERIOR

October 7, 1991

OCT 11 1991

U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA

Mr. Peter Jerome, Refuge Manager
U. S. Fish and Wildlife Service
2233 Watt Avenue, Suite 375
Sacramento, CA 95825

Dear Mr. Jerome:

Thank you for the opportunity to make comments on the "Jones and Stokes Associates, Inc., 1991. Environmental Impact Statement for the Proposed Stone Lakes National Wildlife Refuge. Draft (JSA 91-046.) Sacramento, California."

I am concerned about locating this refuge in particular, and any wildlife refuge in general, adjacent to human habitation. The draft environmental impact statement (DEIS) does not address the potential public health impact from production of insects and other animals which may harbor or transmit disease organisms to man.

A major concern is mosquitoes. When land is intermittently flooded, several species of mosquitoes may be produced. Not only are floodwater mosquitoes voracious feeders and therefore directly injurious, but one common species has been implicated in the transmission cycle of western equine encephalitis, a serious disease of horses and humans. Quiescent water gives rise to the carriers of western equine and St. Louis encephalitis and of malaria, all of which have occurred in the area of the proposed refuge.

The recent actions of the U. S. Fish and Wildlife Service and the project consultants in working with the local mosquito and vector control district is commendable and supported by the Department. However, I am concerned that a system, however well designed, can fail unless properly operated and maintained. Existing refuges in the Sacramento Valley continually undergo mosquito surveillance and chemical control efforts by local agencies. Furthermore, I am made extremely uncomfortable by the stated efforts by some refuges elsewhere in the nation to use "incompatible activities" as reasoning to get out from under the jurisdiction of mosquito abatement agencies. The DEIS does not address the use of pesticides for public health. While I strongly favor limited use of pesticides, I equally strongly support the judicious use of chemical mosquito control to protect people from mosquitoes and mosquitoborne diseases.

A-4-31

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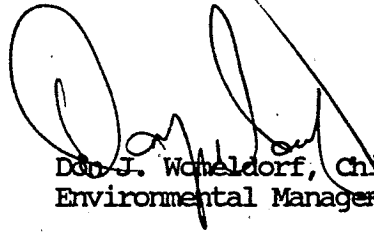
Mr. Peter Jerome
Page 2
October 7, 1991

Diseases such as Lyme disease and rabies may be problems associated with the proposed refuge. We are just learning to understand the distribution of Lyme disease, transmitted by ticks. Rabies, however, is known to be endemic in the area. The proposed refuge will support increased numbers of skunks and promote an increase in the incidence of rabies.

There is a place for refuges, certainly. That place however, is not immediately adjacent to existing or planned residential areas.

If you have any questions, please contact me at (916) 445-0498.

Sincerely,



Don J. Wcheldorf, Chief
Environmental Management Branch

A-4-32

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C-057034

Responses to Comments from the California Department of Health Services

1. Two additional chapters have been incorporated in the final EIS to address the potential effects of the NWR on public health and safety. Chapter 4M, "Affected Environment: Mosquito Control and Public Health" and Chapter 5M, "Environmental Consequences: Mosquito Control and Public Health" focus primarily on the mosquito issue; Lyme disease, bubonic plague, and rabies are also briefly addressed.
2. Comment noted. This information is included in Chapter 4M, "Affected Environment: Mosquito Control and Public Health" in the revised final EIS.
3. Comment noted. No response necessary.
4. The use of pesticides for mosquito control is addressed in the revised final EIS in Chapter 4M, "Affected Environment: Mosquito Control and Public Health" and Chapter 5M, "Environmental Consequences: Mosquito Control and Public Health".
5. Refer to the response to comment 1.
6. The Department of Health Service's (DHS's) comment that refuges are not appropriate adjacent to existing and planned residential areas is noted. However, it should be noted that the production of mosquitos is not unique to habitats typical of a refuge, nor are typical refuge habitats such as wetlands necessarily likely to produce mosquitos in problem numbers.

The map in Figure 4M-1 of the final EIS aptly demonstrates that certain agricultural landscapes and stormwater drains, as well as certain types of wetlands, are capable of producing large numbers of mosquitos. Furthermore, most of the natural wetlands distributed throughout the NWR study area typically do not produce problem numbers of mosquitos because of the presence of natural insect predators and parasites and other physical factors. This conclusion is based on records of treated areas over a 2-year period provided by the SYMVCD and scientific literature about mosquito population dynamics and wetland ecology.

The USFWS agrees that habitats that produce problem numbers of mosquitos should not be placed near areas where people congregate. Therefore, the USFWS is committed to an MOU with the SYMVCD to ensure that mosquito breeding conditions are not increased above existing levels and in some cases will be decreased as a result of NWR implementation. Specific techniques and measures to carry out this commitment are described in Chapters 4M and 5M of the final EIS.

A-4-34

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C-057036

Memorandum

Date : October 11, 1991

To : William Shafroth, Assistant Secretary
Land and Coastal Resources

From : Department of Parks and Recreation
Resource Protection Division

Subject: Stone Lakes National Wildlife Refuge
Draft Environmental Impact Statement
U.S. Fish and Wildlife Service
SCH #91064004

The California Department of Parks and Recreation supports the establishment of a Stone Lakes National Wildlife Refuge. The statement of purpose for the refuge (page 1-1): "... to acquire lands . . . to protect and restore native Central Valley habitats and provide educational and recreational opportunities for the public" is the same as the Department's purpose in the Delta Meadows and Stone Lake projects within the proposed refuge.

The Department also finds common ground in the statement of goals for the refuge (page 1-7), noting particularly the goals to "create linkages between refuge habitats and habitats on adjacent lands to reverse past impacts of habitat fragmentation on wildlife and plant species," and "provide for environmental education, interpretation, and fish and wildlife oriented recreation in an urban setting accessible to large populations."

There is a great lack of and need for publicly-accessible natural areas near Sacramento. Of all California's major landscape provinces, the Central Valley is among those most altered and it is in real need of natural habitat under public protection.

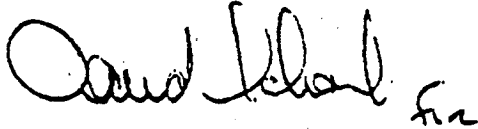
A memorandum of understanding (MOU) was recently signed by representatives of all the major public land managers in California including the Director of the Department of Parks and Recreation and the Regional Director of the U.S. Fish and Wildlife Service (USFWS). In the MOU, the signatory agencies agreed to emphasize protection of ecosystems, biological communities and landscapes rather than focusing solely on individual sites, species and resources. They also agreed to cooperate with each other in order to employ a more bioregional approach to the protection and enhancement of the state's biological diversity. The proposed Stone Lakes Wildlife Refuge provides an opportunity to apply the concepts put forward in the MOU.

William Shafroth
October 11, 1991
Page 2

All of the action alternatives (B to E) would involve Department-owned lands. Among these lands are the old Southern Pacific Railroad Walnut Grove Branch Line right-of-way in two locations: north of Hood and south of Twin Cities Road. The Department's purpose for owning the Walnut Grove line north of Hood is to operate a steam excursion train. The success of this excursion train depends heavily on the continued existence of open space along its route. Acquisitions by the USFWS in this area would help maintain open space, restore native habitats, and enhance the interpretive value of the train ride. Although not discussed in the DEIS, the Department presumes that the USFWS will not oppose operation of the steam excursion train within the proposed refuge. If this is not the case, please contact us before finalizing the DEIS.

A correction: Delta Meadows is an unclassified project of DFR, not a State Park as labeled in the DEIS.

Questions regarding these comments should be directed to Roger Willmarth, Resource Protection Division at (916) 653-0533.



Richard G. Rayburn, Chief
Resource Protection Division

A-4-36

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C-057038

**Responses to Comments from the California Department of Parks and Recreation,
Resource Protection Division**

1. DPR's support for the establishment of a Stone Lakes NWR and observation that the purpose and goals of the NWR are synonymous with DPR's purpose and goals for the Delta Meadows Project and North Stone Lake Wildlife Refuge are noted.
2. Comment noted. No response necessary.
3. DPR's comment that the Stone Lakes NWR represents an opportunity to apply the concepts included in the recently signed memorandum of understanding (MOU) on a coordinated regional strategy to conserve biological diversity is noted. The MOU was signed by representatives of The Resources Agency, DFG, California Department of Forestry and Fire Protection, DPR, State Lands Commission, U.S. Bureau of Land Management, U.S. Forest Service, USFWS, National Park Service, and Division of Agriculture and Natural Resources, University of California.
4. The proposed steam excursion train project is described on page 4I-13, Chapter 4I, "Affected Environment: Recreation and Public Access", in the draft EIS. However, the draft EIS does not note that the USFWS considers the train project compatible with the goals of the Stone Lakes NWR; this information has been incorporated in the final EIS.

DPR's comment that the Stone Lakes NWR would enhance the train project by preserving open space and enhancing native habitats is noted.
5. Comment noted. The status of the Delta Meadows Project has been corrected in the revised final EIS.

A-4-38

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C-057040

DEPARTMENT OF TRANSPORTATION

DISTRICT 3

P.O. BOX 942874-MS41

Sacramento, CA 94274-0001

TDD 916-741-4509

FAX 916-323-7669

916-327-3859

July 31, 1991

CSAC122
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Stone Lakes National
Wildlife Refuge
DEIR
SCH: #91064004

Mr. Peter J. Jerome
U.S. Fish and Wildlife Service
2233 Watt Avenue, Suite 375
Sacramento, CA 95825

Dear Mr. Jerome:

Thank you for the opportunity to review and comment on the above referenced document.

COMMENTS:

Caltrans believes there will be no significant impacts overall, but as stated, specific access impacts should be studied before determining the location of visitor facilities.

1

Any proposal which would result in increasing water surface elevations on the west side of Interstate 5 could have a serious impact upon flooding stages on the east side -- potentially flooding I-5. This issue should be addressed.

2

If you have any questions regarding these comments, please contact Sharon Scherzinger at 916-324-6642.

Sincerely,


ROBERT M. O'LOUGHLIN
Chief, Planning Branch C

U.S. DEPT. OF INTERIOR**AUG 5 1991**

**U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA**

A-4-39

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C-057041

STEVE V. _____
DAVE P. _____
PETE J. _____
STEVE D. _____
LARRY H. _____
DARCY M. _____
ANDREA W. _____
ARK S. _____
LL G. _____
☐ ACTION ☐ FILE
FILE _____

Responses to Comments from the California Department of Transportation, District 3

1. Caltrans' comment that the specific access impacts should be studied before determining the location of visitor facilities is noted. Mitigation measure 5K.1, "Evaluate Potential Traffic Impacts in a Subsequent Environmental Analysis for the Refuge Visitor Facility" is recommended in the revised final EIS for all the NWR alternatives.
2. The effect of the NWR on flooding west of I-5 in the Stone Lakes basin is addressed in the discussion of hydrology and flood control issues in Chapter 3, "Responses to Major Issues Raised in Public Comments on the Draft EIS", and in the response to comments by The Resources Agency, Department of Water Resources. Implementation of the NWR is not expected to affect flooding along I-5 during a 100-year flood event.

Memorandum

To : (1) Carol Whiteside
State Project Coordinator
Resources Agency

(2) Peter J. Jerome
U.S. Fish and Wildlife Service
2233 Watt Avenue, Suite 375
Sacramento, California 95825-0509

From : Department of Boating and Waterways

Date : October 11, 1991

Subject: SCH 91064004
PROPOSED STONE LAKES
NATIONAL WILDLIFE REFUGE

The Department of Boating and Waterways, the state's boating agency, represents the interests of recreational boaters and helps to ensure public access and safe navigation on California waterways.

The Draft Environmental Impact Statement (DEIS) states on page 4I-2 that motorized and non-motorized boating occurs within the proposed project area. On page 5I-8 and 9, the DEIS states: "Recreation uses, such as motorized boating, jet-skiing, and water skiing, would probably be incompatible with the wildlife management objectives for the refuge; these uses could be restricted or prohibited in specific areas of the refuge. However, opportunities for motorized water recreation are available on the Sacramento River and other Delta waterways. This impact is considered less than significant."

The Department disagrees with the assessment that restrictions and prohibitions on boating are less than significant. For example, the Delta Meadows State Park and adjacent areas, located within the project area, are very popular destination points for Delta boaters.

The Department believes that the DEIS does not provide sufficient information about the type of boats and boating activities that take place in the area covered by the proposed refuge. The DEIS states that recreation uses would be determined after the proposed land acquisition.

The Department strongly recommends that additional and detailed information be provided concerning existing boating usage within the proposed project area. In addition, any proposed restrictions or prohibitions on boating activities would need to be analyzed, including review of the reasons for the restrictions, prior to the creation of the refuge.

We appreciate the opportunity to review and comment on the proposed project. If you have any questions regarding the above, please contact Mr. Jim DeBenedetti in Sacramento at (916) 322-1829.

A-4-41


WILLIAM H. IVERS

1. The potential impact of the proposed NWR on boating activities in the Stone Lakes study area and vicinity was identified as an issue of major concern in public comments on the draft EIS. Public concerns about this issue are described in Chapter 3, "Responses to Major Issues Raised in Public Comments on the Draft EIS".

In response to comments by the Department of Boating and Waterways and other public comments, the USFWS revised the recreation analysis in the final EIS for all alternatives and considered the boating issue in development of the Mitigated Preferred Alternative.

The refuge management and administration discussion has been expanded in Chapter 3A, "Alternatives Including the Proposed Action", of the final EIS to better describe typical NWR boating management and regulation and clarify the assumptions made for the analysis of the refuge alternatives. The description of existing boating activities in the Stone Lakes NWR study area has been expanded in Chapter 4I, "Affected Environment: Recreation and Public Access". The expanded discussion describes specific boating uses in various locations in the study area, county boating regulations and law enforcement, and available visitor use data. Based on this additional information, the impacts of the proposed NWR on existing boating activities under Alternatives B, C1, C, D, and E were reevaluated and described in Chapter 5I, "Environmental Consequences: Recreation and Public Access".

The Mitigated Preferred Alternative excludes major recreational boating use areas from the boundary of the core refuge area, including Snodgrass Slough, Meadows Slough, Lost Slough, Locke Slough, Railroad Slough, and the Cosumnes River. There would be no impacts on existing boating uses in the Stone Lakes study area under the Mitigated Preferred Alternative (see Chapter 5I, "Environmental Consequences: Recreation and Public Access").

Memorandum

To : Ms. Carol Whiteside
Assistant Secretary for
Intergovernmental Relations
Resource Agency
1416 9th Street, Room 1311
Sacramento, CA 95814

From : Department of Conservation—Office of the Director

Date : August 19, 1991

Subject: Draft Department
Environmental
Impact Statement
for the Stonelakes
National Wildlife
Refuge
SCH# 91064004

The Department of Conservation has reviewed the project referenced above which would establish a national wildlife refuge south of the City of Sacramento. The Department is responsible for monitoring farmland conversion on a statewide basis and also administers the California Land Conservation (Williamson) Act. Since the project will impact prime agricultural and Williamson Act contracted lands, the Department offers the following comments.

While the Draft Environmental Impact Statement (DEIS) does address prime agricultural land and Williamson Act contracted land issues, specific information should be included on the impacts to agricultural land and Williamson Act lands occurring if Alternative C1 is implemented, since it would result in the conversion of 8,457 acres of agricultural land, of which 2,793 acres is prime farmland. Information should identify the number of acres of agricultural land to be developed, the potential agricultural value of the area, the impacts of farmland conversion, and possible mitigation actions related specifically to the alternative C1.

A map which identifies the location of agricultural preserves and Williamson Act contracts, both within and without the various project alternatives, and particularly the preferred alternative C1, should be included. Statistics should provide details on the number of acres of land, and land categories according to Government Code Section 51201, which are under contract. A copy of Government Code Section 51200 et seq. is enclosed for your information.

Mitigation measures and alternatives that would lessen farmland conversion impacts should be clearly identified for the preferred alternative. A public agency shall adopt a reporting or monitoring program for adopted project changes which mitigate or avoid significant effects on the environment (AB 3180). Adopting a farmland protection program that utilizes such land

A-4-43

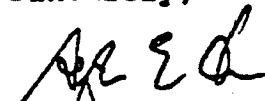
Ms. Whiteside
Page Two

use planning tools as transfer of development rights, purchase of development rights or conservation easements, and farmland trusts should be considered. For example, the Fish and Wildlife Service should consider supporting the establishment of the North Delta Conservancy, as recommended by the Department of Food and Agriculture, as a possible mitigation measure.

In its comments on the DEIS dated August 14, 1991, the Department of Food and Agriculture provided suggestions for improving the statistics included in the DEIS on the various alternatives' impacts. We agree with that Department's comments and hope that the improved data will be included in the DEIS. In addition, we recommend that a DEIS be prepared which will focus solely on the final, preferred Alternative C1 which would address all the identified issues and provide data clearly related to the chosen method of establishing the wildlife refuge.

The Department appreciates the opportunity to comment on the Draft Environmental Impact Statement. We hope that the farmland conversion impacts and the Williamson Act contract impacts are given adequate consideration in the Final Environmental Impact Report. If I can be of further assistance, please feel free to call me at (916) 322-5873.

Sincerely,



Stephen E. Oliva
Environmental Program Coordinator

cc: Kenneth E. Trott, Manager
Office of Land Conservation

A-444

C - 0 5 7 0 4 6

C-057046

**Responses to Comments from The Resources Agency, Department of Conservation,
Office of the Director**

1. Alternative C1 and the Mitigated Preferred Alternative are fully analyzed for their impacts on agricultural resources in the final EIS. Mitigation measures for impacts on agricultural resources resulting from these alternatives have been developed and are included in the final EIS.
2. A Williamson Act lands map has been prepared and is included in the final EIS. Refer to the response to DFA's comment 5.
3. Mitigation measures that would lessen farmland conversion impacts identified for Alternative C1 and the Mitigated Preferred Alternative have been identified and included in the final EIS. No mitigation is available to reduce the direct impacts of agricultural land conversion to less-than-significant levels other than avoiding prime agricultural land converted by the project. Measures such as transfer or purchase of development rights and purchase of conservation easements by groups such as American Farmland Trust, The Nature Conservancy, or the North Delta Conservancy are supported by USFWS. These measures, however, would protect offsite lands and would not reduce onsite impacts caused by the conversion of agricultural lands for NWR purposes. USFWS is proposing to purchase conservation easements on some lands under each of the project alternatives.

Assembly Bill (AB) 3180, requiring the preparation of a mitigation monitoring plan, is a state law that applies to documents prepared under the California Environmental Quality Act (CEQA). The draft and final EIS were prepared under NEPA and are therefore not subject to the requirements of AB 3180 and CEQA.

4. Comment noted. Please refer to the responses to DFA's comments.
5. Comment noted. Refer to the response to comment 1.

A-4-46

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C-057048

Memorandum

Date : OCT 15 1991

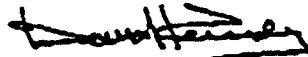
To : A-38
Carol Whiteside, Assistant Secretary
Intergovernmental Relations
The Resources Agency
1416 Ninth Street, Room 1131
Sacramento, California 95814

From : Department of Water Resources

Subject : SCH No. 91064004, Stone Lakes National Wildlife Refuge/Draft
Environmental Impact Statement - U. S. Fish and Wildlife
Service

The Department of Water Resources has reviewed the Stone
Lakes National Wildlife Refuge Draft Environmental Impact
Statement dated May 1991. Our comments are attached.

Questions with respect to DWR's North Delta Program should
be directed to Ed Huntley, Chief of the Division of Planning,
at CALNET 453-1099. For other questions concerning these
comments, your staff should contact George T. Qualley, Chief of
the Division of Flood Management, at CALNET 453-0108.



David N. Kennedy
Director
CALNET 453-7007

Attachment

A-4-47

COMMENTS BY THE DEPARTMENT OF WATER RESOURCES
ON THE
STONE LAKES NATIONAL WILDLIFE REFUGE
DRAFT ENVIRONMENTAL IMPACT STATEMENT

GENERAL COMMENTS

- Although the proposed project area for preferred Alternative C1 does not contain any federal flood control (project) levees, some locally-constructed (nonproject) levees may fall within the proposed project boundaries. Planting objectives are not discussed in sufficient detail to determine if planting is proposed on levee sections. Revegetation plans must be compatible with flood control. If the vegetation is not compatible with flood control, drainage of the project areas will be affected, resulting in possible increases in backwater, upstream flooding, or widening of the floodplain. 1
- The Reclamation Board has regulatory authority over the levees, beds, banks, and channels of the Sacramento and San Joaquin Rivers and all tributaries and connected overflow areas. The Board focuses its authority on levees and areas which may directly affect federal levees. Any planting proposed in these areas would require a Board Permit. 2
- The proposed project area is located in the vicinity of the Department of Water Resources' State Maintenance Area 9. The U. S. Fish and Wildlife Service's National Wildlife Refuge should be evaluated to determine if it could have an undesirable impact on the lands owned by DWR and on DWR's ability to maintain levees. 3

ADDITIONAL COMMENTS

- The Draft Environmental Impact Statement indicates that the proposed National Wildlife Refuge habitat management program would rely primarily on water supplied by natural runoff entrapment or seasonal water diversion. Will entrapment structures impact flood stages in the vicinity of the Stone Lakes National Wildlife Refuge? Will the Stone Lakes NWR project alternatives adversely affect the local and State planning efforts to provide better flood control to residents and agricultural lands in the North Delta and Stone Lakes area? Can the project area continue to function as a floodwater detention area? 4
- The designations "federal" and "local" rather than "project" and "nonproject" for levees are now being used by the U. S. Army Corps of Engineers and DWR. 5

Comments on Stone Lakes DEIS (continued)

- Page 2-2 - Levees and Flood Control: How would the proposed NWR boundaries affect implementation of DWR's proposed North Delta Program, including channel dredging, levee setbacks, Delta Cross Channel enlargement, partial tide gate structures, and a connecting channel between the Sacramento River and Central Delta? 6
- If USF&WS acquires fee title ownership and/or conservation easements to parcels of land under any of its NWR alternatives, how will it maintain and to what standards will it maintain local (nonproject) levees in the proposed NWR? 7
- Page 2-2 states that federal agencies do not have any control over local (nonproject) levees. The statement is incorrect; the Federal Emergency Management Agency, through the Hazard Mitigation Program, is requiring the upgrading of numerous Delta levees as a condition of eligibility for future federal assistance during flood disasters. 8
- On page 2-2, the last paragraph states: "The Reclamation Board establishes and enforces standards for the maintenance and operation of local (nonproject) levees." The statement is incorrect. The Board does not have standards for maintenance and operation of local levees since it does not exercise jurisdiction over them--except in cases where the functioning of the Sacramento River Flood Control Project could be affected. The Board does, however, have procedures for the administration of the Delta Levee Subventions Program in an equitable fashion. 9
- Page 3A-8 - The Reclamation Board is not mentioned as a landowner. The Board has several small parcels (e.g., 0.05 acres) adjacent to the Sacramento River. 10
- Page 3A-15 - The DEIS refers to DWR owning "several discontinuous excavated ponds from the now defunct Peripheral Canal project and soil borrow sites from the construction of I-5." DWR has not conducted planning studies for a Peripheral Canal since Proposition 9 was not approved by the voters in 1982. However, there is considerable interest in the Peripheral Canal alternative by a number of environmental and water groups because of its advantages for water quality, fish and wildlife, and export reliability. Given the critical need to improve Delta transfer capability and environmental conditions, the current strategy is to forge a consensus around incremental improvements that provide immediate net benefits to all interests, and which are compatible with a wide range of future water resource planning 11

Comments on Stone Lakes DEIS (continued)

options. However, DWR is leaving to the future the longer-range issue of what the ultimate Delta configuration may be.

- Page 3A-15 - The DEIS states that DWR's, "North Delta Plan is a flood control project." The Department would like to emphasize that the Program addresses several North Delta and statewide issues, including flood control, reducing reverse flow, improving water quality, improving State Water Project reliability, reducing fishery impacts, improving recreational opportunities, and enhancing wildlife habitat.
- Page 3A-15 - The DEIS states that "this analysis assumes that DWR property would be included in the Stone Lakes NWR under alternatives C, D, and E." DWR is willing to discuss the status and potential management of State lands with USF&WS, DFG, or other affected entities including, State, federal, and local agencies as well as adjacent landowners and leaseholders. Current land uses are constrained by management agreements with leaseholders and DFG.
- Page 4D-6, Lambert Road Flap Gate: The DEIS states "no federal or State water resource or flood control projects are located in the study area with the exception of the federal project levees on the Sacramento River." Levee improvements have been undertaken or are in various stages of planning within the project area under the Delta Flood Protection Act of 1988 (SB34). The Delta Cross Channel, near Walnut Grove, has been operated by the U. S. Bureau of Reclamation since 1951 to reduce reverse flow in the lower San Joaquin River. DWR's North Delta Program, including potential purchase of lands for wildlife habitat mitigation and for borrow material, includes portions of the NWR study area.
- On page 9, the C1 alternative indicates that it is entirely within the 100-year floodplain: Approximately 90 percent of the preferred C1 alternative is within the floodplain.
- The statement on page 9 has clearly suffered from abbreviation to fit the Executive Summary. The full text on page 3A-41 compares Alternative C to Alternative B and says, "With the exception of the Scribner Bend area (PU 5), all of the additional lands included in Alternative C are within the 100-year floodplain." This just covers the additions over Alternative B. On page 3A-35, the exceptions in Alternative B are "...the southeast parts of PU 7, and the east-central area of PU 9."

Comments on Stone Lakes DEIS (continued)

• Pages 13 and 5D-25 indicated that the refuge is compatible with flood control functions of Stone Lakes, Cosumnes River, and Sacramento River. Generally, the proposed waterfowl management schemes take enough otherwise available flood control volume out of use to significantly affect the capacity of this flood retention basin.

17

Although the document is correct in stating that federal agencies do not have direct jurisdiction over local (nonproject) levees, FEMA does have an influence on the amount of maintenance performed on these levees. FEMA has an agreement with the State and the local reclamation districts regarding flood hazard mitigation in the Delta. The districts have agreed, with financial assistance from the State, to bring their levees up to the short-term Hazard Mitigation Program standards by September 10, 1991. The possible consequences of not achieving these standards is the loss of eligibility for future federal disaster assistance in the event of a flood. These standards prescribe a minimum levee geometry, an all-weather access road, and the maintenance of a safe levee.

18

• There are many levees in the Stone Lakes area as depicted on figures 4D-5a and 4D-5b. Of all of these levees, only the levee on the east bank of the Sacramento River is a federal levee. The purpose of this federal levee is to protect life and property by containing the river. Of course, it keeps the adjacent land dry in the process unless it has been flooded from a different direction. Breaching the federal levee would be prohibited under both federal and State standards because access along the toe is necessary for flood fight. But breaching levees per se is not necessarily undesirable from an overall flood protection perspective as long as the intended flooding is accomplished and no other land is inundated.

19

A-4-51

Responses to Comments from The Resources Agency, Department of Water Resources

1. The USFWS has no plans to revegetate or alter existing flood control levees within the proposed NWR.
2. Comment noted. The Reclamation Board's jurisdiction has been clarified in the levees and flood control section of Chapter 2, "Relationships with Other Agency Programs and Policies", in the final EIS.
3. The proposed NWR would have minor effects on flood levels, including downstream of the Lambert Road structure. The Lambert Road embankment and tide gate structure act as the hydraulic control for major flood events, releasing floodwaters downstream and onto the lands owned by DWR. The Lambert Road outlet and embankment would not be altered as part of the proposed NWR. The NWR would not affect DWR's ability to maintain existing levees downstream of the project.
4. The Lambert Road embankment outlet acts as a major flow constriction and hydraulic control for floodflows throughout the Beach/Stone Lakes complex. This structure represents the overriding control point for flood levels occurring upstream because of the extensive backwater ponding effect within the Beach/Stone Lakes complex. The extensive backwater during a 100-year storm event would diminish the effects of the proposed regrading within the Beach/Stone Lakes floodplain. The project area will continue to function as a floodwater detention area because the activities associated with refuge management would not interfere with the Lambert Road structure or modify the extent of floodplain coverage during a 100-year storm. The draft EIS states on page 5D-12 that floodflow modeling completed for the Morrison Creek Stream Group Reconnaissance Report prepared in 1987 by the Corps indicated that major flood event levels are insensitive to any reasonably expected Beach/Stone Lakes area channel modifications. See page 5D-12 of the draft EIS for more discussion of the project's effects on flood capacity and protection.
5. Comment noted. The correct terminology for federal and local levees has been incorporated in the final EIS.
6. The establishment of the refuge would not have a significant effect on the DWR North Delta Program, which is predominantly associated with the area downstream of the proposed NWR. Larger floodwaters from the Cosumnes and Mokelumne Rivers and Dry Creek and the limited capacities of the areas downstream of the North and South Forks of the Mokelumne River tend to diminish effects caused by flows from the Beach/Stone Lakes area. The USFWS will develop an MOU with DWR that will allow DWR to maintain channels as planned under the NDP.

The NDP may affect the hydrology of the NWR. Implementation of DWR's program may result in higher flood levels at times in Snodgrass Slough downstream of the

Lambert Road structure, and higher tailwaters at the Lambert Road structure will result in reduced outflow. DWR will coordinate with the USFWS to provide mitigation for the NDP where appropriate (California Department of Water Resources 1990).

7. Existing flood control structures and levees are located within the boundaries of the proposed NWR. An MOU between the USFWS, adjacent reclamation districts, and the City and County of Sacramento will be developed that will allow local entities to continue to operate and maintain existing flood control works with sufficient access and right-of-way. The MOU between the USFWS and the governing agencies and adjacent reclamation districts will be consistent with existing and anticipated future flood control policies.
8. Comment noted. The final EIS has been revised to provide additional information on FEMA's jurisdiction over local levees. Insert the following paragraph after the last paragraph, page 2-2:

Federal agencies do not have direct jurisdiction over local levees; however, the Federal Emergency Management Agency (FEMA) does have an influence over the extent of maintenance performed on these levees. FEMA has an agreement with the state and local reclamation districts regarding flood hazard mitigation in the Delta. The districts have agreed, with financial assistance from the state, to bring their levees up to the short-term Hazardous Mitigation Program standards by September 10, 1991. The possible consequences of not achieving these standards is the loss of eligibility for future federal disaster assistance in the event of a flood. These standards prescribe a minimum levee geometry, an all-weather access road, and the maintenance of a safe levee. (Kennedy pers. comm.)

9. Comment noted. The final EIS has been revised to correct this information. The first sentence, last paragraph on page 2-2 is revised to read, "The Reclamation Board has established procedures for the administration of the Delta Levee Subventions Program".
10. The discussion on page 3A-14 of the draft EIS of areas under jurisdiction of public or quasi-public agencies and organizations includes only those areas within the boundaries of the NWR alternatives. All the NWR alternatives exclude lands adjacent to the Sacramento River, including the parcels owned by Reclamation. Therefore, this information has not been included in the final EIS. In addition, the parcels of this size are too small to be relevant to the general level of analysis and conceptual NWR project description at this stage in the NEPA process. Future detailed site-specific plans will inventory and evaluate the importance of smaller parcels in each planning unit.

11. Comment noted. The final EIS, first sentence, fourth paragraph on page 3A-20 is revised to read: "... including several discontinuous ponds excavated as soil borrow sites during construction of I-5".
12. Comment noted. The final EIS has been revised to include this information. Insert the following sentence before the third sentence, fifth paragraph on page 3A-21: "The North Delta plan addresses several North Delta and statewide issues, including controlling floods, reducing reverse flow, improving water quality, improving State Water Project reliability, reducing fishery impacts, improving recreational opportunities, and enhancing wildlife habitat." Revise the third sentence to read: "The plan would involve channel dredging, ..."
13. Comments noted. No response necessary.
14. Comment noted. Levee protection covered under SB 34 and the USBR-operated Delta Cross Channel are still not considered federal project levees.
15. Comment noted. The description of Alternative C1 in the executive summary for the final EIS has been corrected to incorporate this information.
16. Comment noted. No response is necessary.
17. As stated on page 5D-12 of the draft EIS, the dominant hydraulic control of the Lambert Road embankment and the outlet structure results in significant backwater ponding effects in the North and South Stone Lakes areas. The Corps' preliminary flood routings as part of the Morrison Creek Stream Group Reconnaissance Study of 1987 indicated that the Beach/Stone Lakes floodwater levels are relatively insensitive to channel alterations during major flood events.
18. Please refer to the response to comment 8.
19. Comment noted. USFWS does not plan to breach or modify any levees along the Sacramento River as part of NWR implementation, or to attempt to restore historic flooding from high waters of the Sacramento River.

Resources Building
1416 Ninth Street
Sacramento, California
95814

(916) 446-5858
FAX (916) 323-1972
TDD (916) 324-0804

California Conservation Corps
Department of Boating and Waterways
Department of Conservation
Department of Fish and Game
Department of Forestry and Fire Protection
Department of Parks and Recreation

PETE WILSON
GOVERNOR
STATE OF CALIFORNIA



THE RESOURCES AGENCY

Air Resources Board
California Coastal Commission
California Tahoe Conservancy
California Integrated Waste
Management Board
Colorado River Board
of California
Energy Resources, Conservation
and Development Commission
San Francisco Bay Conservation
and Development Commission
State Coastal Conservancy
State Lands Commission
State Reclamation Board
State Water Resources
Control Board
Regional Water Quality
Control Boards

Post-It™ brand fax transmittal memo 7671		# of pages >
To <i>Peter Jerome</i>	From <i>Doug Robotham</i>	
Co. <i>Fish & Wildlife</i>	Co. <i>Resources</i>	
Dept.	Phone <i>225-5656</i>	
Fax # <i>978-4427</i>	Fax # <i>653-8102</i>	

October 11, 1991

U.S. DEPT. OF INTERIOR

OCT 15 1991

U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA

Peter Jerome
United States Fish and Wildlife Service
2233 Watt Avenue, Suite 375
Sacramento, CA 95828

Dear Mr. Jerome:

Permit me to commend the United States Fish and Wildlife Service (USFWS) for its thorough work to date in conducting analysis relating to the establishment of the proposed Stone Lakes National Wildlife Refuge. The Draft Environmental Impact Statement for Stone Lakes National Wildlife Refuge (DEIS) provides an important overview of the options available to protect valuable wetland, riparian, and upland habitat south of the city of Sacramento. Attached to this letter are specific comments on the DEIS prepared by various state agencies and intended to assist USFWS in the completion of the Final EIS. The Resources Agency supports the preferred alternative C1.

The Stone Lakes area presents a unique opportunity to preserve a relatively small but important remnant of the Central Valley's once extensive complex of associated wetland, upland, and riparian habitats. Measures taken now to conserve these habitats will yield important benefits not only to their natural denizens, but to present and future generations of Californians as well.

In recognition of the benefits of resource conservation, Governor Wilson on Earth Day announced RESOURCEFUL CALIFORNIA -- his fourteen point blueprint for statewide resource protection over the next two years. Some of the most critical features of this package include:

- o the protection of wetlands through acquisition and the development of a statewide wetlands conservation program designed to attain the goals of no-net loss of

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wetlands in the short-term and a long-term net gain in wetlands acreage and quality;

- o the protection of riparian habitat through the development of a Riparian Conservancy within the state Wildlife Conservation Board;
- o the protection through collaborative planning processes of endangered species and other species whose populations are potentially at risk due to habitat loss or degradation; and
- o the protection of prime farmland and encouragement of measures to make farming and wildlife management compatible ventures.

Creation of a National Wildlife Refuge in the Stone Lakes area, consistent with the specifications of the preferred alternative and with the comments in the remainder of this letter, will complement the Administration's efforts to achieve these important goals.

The Stone Lakes area is uniquely deserving of creative approaches to resource protection and management. Located on the eastern margin of the Sacramento River-San Joaquin River Delta and just north of the Sacramento River-Consumnes River confluence, Stone Lakes provides important habitat to Pacific Flyway waterfowl, shorebirds, and Central Valley upland species, many of which are candidates for listing or are already listed under both the federal and State Endangered Species Acts. Only a short distance from downtown Sacramento, the area has great potential as a place where Sacramentans, and indeed Californians of every stripe, can recreate and become educated about the State's distinctive natural heritage. The proposed refuge would also encompass significant areas of agricultural land, including some prime farmland, areas used for boating, and miles of levees necessary for local flood control. For all these reasons, the proposed Stone Lakes Refuge presents both opportunities and challenges for all who are interested in the area's unique values.

The State of California long has had an interest in protecting and managing the resource values of the Stone Lakes area. In pursuing various initiatives, entities of the State have sought to establish partnerships with local agencies, private non-profit organizations, landowners, and other private enterprises to promote mutually satisfactory arrangements. For example, the Department of Fish and Game has collaborated successfully with conservation organizations and county parks departments in the protection of important riparian and wetland habitat along the Consumnes River, and continues to work with these interests to establish an interpretive center in the area.

A-4-56

The Department of Water Resources is working with local governments and landowners on various projects to enhance flood control, water supply reliability, water quality, and wildlife habitat in the area. Other examples of cooperation in the area exist, as well.

The Resources Agency strongly encourages USFWS to continue in this spirit of cooperation and collaboration as it pursues implementation of the preferred alternative C1. In particular, USFWS should seek out opportunities to work with organizations interested in farmland conservation to identify and implement tools which will permit cultivated land, especially prime land, to stay in production while also promoting protection of wildlife habitat values. Identification in the Final EIS of prime farmland, as suggested in the comments submitted by the Departments of Conservation and Food and Agriculture (see attachments), would facilitate such cooperative efforts. USFWS should also work with interested parties to minimize adverse impacts to boating-oriented recreation. Finally, USFWS should begin to identify ways to implement necessary on-going levee maintenance and repair in a manner consistent with protection of habitat values. The State's experience with implementation of the SB 34 program may be instructive in this regard.

The DEIS already is a positive step in the identification of resource management and protection measures for the Stone Lakes area. With inclusion of examples of how USFWS intends to develop innovative and collaborative resource protection measures that take into account local interests, the final document truly will be a valuable decision-making tool. Please do not hesitate to contact William G. Shafroth, Assistant Secretary for Land and Coastal Resources, if you need any further information.

Sincerely,


Douglas R. Wheeler
Secretary for Resources

Attachments

cc: Governor's Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814
(SCH 91064004)

A-4-57

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C-057059

Responses to Comments from The Resources Agency, Secretary for Resources

1. The Resources Agency's observation that the creation of the Stone Lakes NWR will complement "Resourceful California," the Governor's fourteen-point blueprint for statewide resource protection, is noted.
2. Refer to the response to comment 2 by DFA.
3. The amount of prime farmland that would be converted under Alternative C1 and the Mitigated Preferred Alternative has been estimated and is presented in the final EIS. Refer to the responses to comments 1 and 5 by DFA.
4. The effects of the proposed Stone Lakes NWR project on boating-oriented recreation was identified as a major issue in the majority of the public comments on the draft EIS. In response to these concerns, the USFWS deleted major boating use areas from the Mitigated Preferred Alternative. The boating issue is discussed in detail in Chapter 3, "Responses to Major Issues Raised in Public comments on the Draft EIS". Refer also to the response to comment 1 by the Department of Boating and Waterways.
5. Refer to the response to comment 7 by The Resources Agency, Department of Water Resources.

STATE LANDS COMMISSION

LEO T. MCCARTHY, Lieutenant Governor
GRAY DAVIS, Controller
THOMAS W. HAYES, Director of Finance

EXECUTIVE OFFICE
1807 - 13th Street
Sacramento, CA 95814
CHARLES WARREN
Executive Officer

October 10, 1991

Ms. Carol Whiteside
State Projects Coordinator
The Resources Agency
1416 - 9th Street
Sacramento, California 95814

Mr. Peter Jerome
U.S. Fish and Wildlife Service
2233 Watt Avenue, Suite 375
Sacramento, California 95825

Dear Mr. Jerome:

Staff of the State Lands Commission (SLC) has reviewed the Draft Environmental Impact Statement (DEIS) for the Stone Lakes National Wildlife Refuge (SCH #91064004).

In general we concur with the environmental analysis presented in the DEIS. However, we would like to offer the following specific comments:

1. Page 2-3 - The statement concerning the jurisdiction of the SLC should be expanded to include the following additional information:

The State owns the navigable and tidal waterways of the Sacramento, Mokelumne, and Cosumnes Rivers, Snodgrass and Lost Sloughs, Morrison Creek, portions of the Delta Meadows area, and other tidally influenced waters within the project area. Additionally, Beach Lake and Stone Lake may also contain potential State interests.

2. Pages 5I-8 and 5I-9 - Displacement of Existing Recreation Activities Considered Incompatible with NWR Objectives:

As noted on page 2-3, recreation is a Public Trust use. Public Trust uses must be evaluated in light of their potential to impact Public Trust resources so as to not degrade or adversely affect such resources. Therefore, the discussion of impacts to existing recreation needs to be expanded. Specific areas where it is anticipated that motorized boat traffic will be impacted need to be identified. The degree of impact needs to be specified, and a corresponding mitigation plan should be developed.

A-4-59

Whiteside/Jerome
October 10, 1991
Page Two

The mitigation plan should consider regulation of use via speed limits, permits, standards for use, visiting hours, and possibly the exclusion of certain types of uses (e.g. water skiing, jet skis).

It is not sufficient to assume that the existing recreational uses can relocate. What impacts would potential displacement have on congestion, travel speed, services, noise, activity level, habitat protection, etc., elsewhere on the river and Delta waterways?

In summary, staff of the SLC find the project goals as presented in the DEIS consistent with the Public Trust needs and resources in the planning area. The Commission has, in the past, cooperated with the U.S. Fish and Wildlife Service by entering into long term leases for inclusion of the State's Public Trust lands in a number of National Wildlife Refuges, including lands in the San Francisco Bay and Tijuana Estuary. We look forward to continued collaboration on projects of mutual interest.

If you have any questions, please contact John Lien at 916-322-7805.

Sincerely,



MARY GRIGGS
Manager
Environmental Review Section

cc: OPR

File: SD 91-05-04

A-4-60

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Responses to Comments from the State Lands Commission, Environmental Review Section

1. Comment noted. The final EIS has been revised on pages 2-10 and 2-11 to include the following paragraph after the sixth paragraph:

The state owns the navigable and tidal waterways of the Sacramento, Mokelumne, and Cosumnes Rivers; Snodgrass and Lost Sloughs; Morrison Creek; portions of the Delta Meadows area; and other tidally influenced waters within the Stone Lakes study area. Additionally, Beach Lake and North and South Stone Lakes may contain potential state interests. (Griggs pers. comm.)

2. Please refer to the response to comment 1 by The Resources Agency, Department of Boating and Waterways.
3. Comment noted. The SLC's findings that the Stone Lakes NWR project goals as presented in the draft EIS are consistent with the public trust needs and resources in the planning area are noted.

A-4-62

C - 0 5 7 0 6 4

C-057064

Milo F. Wetzel
Fire Chief
Stan Eddy
Deputy Chief

COURTLAND FIRE DISTRICT

Directors:
Arthur Jonson
James Herzog
William Carr

U.S. DEPT. OF INTERIOR

August 29, 1991

SEP 5 1991

U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA

Peter Jerome
U.S. Fish & Wildlife Service
2233 Watt Ave., Suite 315
Sacramento, CA 95825

RE: Proposed Stone Lake Wildlife Refuge - EIS deficiencies

Dear Mr. Jerome:

In the past few weeks, the Directors of the Courtland Fire District has received information that a substantial part of our public service area is to be included in the Stone Lake Proposal favored by the U.S. Fish & Wildlife Service. The Courtland Fire District is a volunteer fire response and public safety district composed entirely of volunteers whose jurisdiction extends from Freeport to Vorden Road. Our taxing base includes many ranches that are proposed for inclusion in the C, C-1, D and E proposals. A review of the Environmental Impact Statement produced by Jones & Stokes reveals the following deficiencies.

1. Decreased Tax base: The EIS fails to address the decreased tax base which would result from Federal Government acquisition of these properties. The supplemental EIS should address the proper method of financing to the Fire District for property lost due to the acquisition. 1

2. Increased public use requires increased fire and medical emergency services: A review of existing volunteer fire districts throughout California in whose jurisdiction there has been public acquisition for parks or wildlife refuges, (i.e. Big Basin State Park), reveals an increased demand for public safety services because of increased public use. It has been the experience of the volunteer fire districts that typically the public agencies do not budget adequately for the increased demand for services created by the influx of members of the public to these previously private parcels of land. The EIS should address the overall expected costs of these services, for Walnut Grove, Courtland, Elk Grove and the City of Sacramento fire protecting agencies. It is expected that said costs will have a significant impact and should be addressed. 2

*return address on
mailed envelope:*
J. H. Jonson & Sons, Inc.
575 Lambert Road
Courtland, CA. 95615

Business Phone (916) 775 1210

P.O. Box 163

Courtland

California

95615

A-4-63

C - 0 5 7 0 6 5

C-057065

COURTLAND FIRE DISTRICT

Page 2

3. Increased threat of wildfires: The District has noticed that the "Core" project (A-1), which is presently under the jurisdiction of public agencies, and located North of Hood-Franklin Road appears to be a fire hazard. Typically, that ground has not been grazed or otherwise kept in a state sufficient to minimize the range of grass fires or wildfires. In the areas of C, C-1, D & F, as a rule the private land owners tend to comply with Sacramento County rules and regulations and Fire District regulations regarding the maintenance of brush control. The EIS does not address, at all, what steps the U.S. Fish & Wildlife Service would take to minimize said threat. The District is greatly concerned that nowhere in the planning process of any of the proposals is this threat so common to Sacramento County taken into account. The supplemental EIS must address these issues and provide alternatives and mitigation measures.

We must require that these issues be addressed, especially the costs of these issues in a supplemental EIS process.

We are greatly concerned that U.S. Fish & Wildlife Service has failed to address these issues.

Sincerely,

Arthur H. Jonson Director

cc: Jones & Stokes
Sacramento County Board of Supervisors
Congressman Vic Fazio
Senator John Seymore

Responses to Comments from the Courtland Fire District

1. Courtland and Walnut Grove Fire Districts were identified in Table 5L-3 as special districts located in the study area that could potentially be affected fiscally by reductions in the property tax base. The effects of each alternative on the revenues of each special district were analyzed and were considered significant if the alternative would result in an expected reduction in district revenues of at least 5%. Under each alternative, refuge establishment would reduce the revenues of the Courtland and Walnut Grove Fire Districts by less than 5%.
2. As noted in Chapter 3A, "Alternatives Including the Mitigated Preferred Alternative," of the final EIS, all refuge lands are closed to public use, unless specifically opened by regulation. The USFWS would not open any areas to public use without first completing management plans that would incorporate public concerns and be subject to public comment.

It is anticipated that public use would be concentrated in the northwest part of the refuge near the visitor center; many of the outlying areas of the refuge would most likely be closed to public use. Therefore, public use in the majority of the refuge would not be expected to be substantially greater than before federal acquisition. Consequently, the need for fire and emergency medical services is not expected to increase significantly.

The USFWS typically has firefighting equipment and certified firefighting personnel available on a NWR. Refuge managers also typically enter into contracts or cooperative fire agreements with local departments to provide services on refuge lands; local departments can be reimbursed for services. It is USFWS policy to encourage the use of contracts and cooperative agreements to provide fire suppression capability on NWRs. Fire protection and emergency services needs would be assessed in a fire management plan prepared after refuge establishment and land acquisition.

Chapter 5L, "Environmental Consequences: Socioeconomic and Fiscal Conditions", in the final EIS identifies special districts that provide services to lands in the Stone Lakes study area (Table 5L-3); fire districts are included. This chapter also includes an evaluation of potential impacts on the funding available to the county and special districts as a result of federal acquisitions of private lands. The analysis concludes that the establishment of the NWR could result in beneficial impacts on revenues available to Sacramento County and local districts if USFWS reimbursements under the Refuge Revenue Sharing Act occur at their historical average rate of 80% of the fully authorized amount.

Under the Mitigated Preferred Alternative, federal reimbursements would exceed current property tax revenues by an estimated 17%. This increment would be expected to increase over time as fair market values grow faster than the Proposition 13-

restricted assessed values. Consequently, USFWS property acquisitions would have a beneficial fiscal impact on the county and on local special districts such as fire district.

3. Comment noted. The property referred to in your comment letter is the North Stone Lake Wildlife Refuge, jointly owned by DPR and Sacramento County Department of Parks and Recreation, and managed by the Sacramento County Department of Parks and Recreation. A draft master plan for this 2,500-acre area surrounding North Stone Lake west of I-5 is in preparation by the Sacramento County Department of Parks and Recreation, including optional plans for wildfire prevention and control. Two years ago, the grazing lease on this property was terminated, resulting in a greater biomass of dry annual grassland.

If USFWS enters into an MOU with the Sacramento County Department of Parks and Recreation for management of PU 6 (i.e., North Stone Lake refuge) as part of an NWR, USFWS will prepare a fire management plan as part of the NWR specific plan. This plan will be subject to NEPA compliance, including environmental documentation and public review. USFWS will collaborate in preparing the plan with all affected fire districts and public agencies owning land in the NWR core area.



FLORIN RESOURCE CONSERVATION DISTRICT

65 QUINTA CT. SUITE C SACRAMENTO, CA 95823

(916) 682-7844

August 29, 1991

U.S. Fish and Wildlife Service
Sacramento Realty Field Office
Planning Branch
2233 Watt Avenue, Suite 375
Sacramento, CA 95825-0509

Attn: Mr. Peter Jerome

Re: Comments, Proposed Stone Lakes Wildlife Refuge DEIS.

Dear Mr. Jerome:

After review of the Draft Environmental Impact Statement (DEIS) concerning the above referenced project the Florin Resource Conservation District (RCD) must oppose the Preferred Alternative C-1, and all other Alternatives requiring acquisition of private lands.

1

The proposed project as described in the DEIS is very vague. No specific plan is put forth regarding amount and location of seasonal and permanent wetlands. In numerous places in the document it is stated that due to the lack of detail regarding refuge facilities, management proposals, etc., only a general discussion could be presented. This lack of detail is a major concern to farmers and other landowners in the area. The RCD recommends that the Fish and Wildlife Service work with local individuals and groups, to develop a clear and concise proposal, including a detailed management plan with full public input and environmental review.

2

The Preferred Alternative at completion would result in the conversion of approximately 10,000 acres of agriculture land, including 2,800 acres of Prime Farmland, resulting in the loss of approximately \$2.4 million annually in agriculture production. Direct farm commodity reduction of \$2.4 million annually equates to a loss of \$7.2 million annually to the local economy.

3

U.S. DEPT. OF INTERIOR

AUG 30 1991

A-4-67

U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA

C - 0 5 7 0 6 9

C-057069

Pg. 2
Florin RCD
DEIS comments

A group of local farmers is working to establish the North Delta Conservancy (NDC). Another potential project alternative, referred to as Alternative A-1, would be for the Fish and Wildlife Service to support establishment of the Conservancy and work closely with the Conservancy for implementation of their proposal.

Alternative A-1 suggest the formation of a Wildlife Refuge on existing Public Lands north of Hood-Franklin Road. Lands south of Hood-Franklin Road would be placed in the NDC, and with deed restrictions, would be used only for agriculture purposes and wildlife habitat. This Alternative could be in place in considerably less time than the 15 years proposed for acquisition by the USF&WS. Also, Alternative A-1 would not require the expenditure of \$40 million for acquisition, nor create a \$7.2 million annual loss to the local economy due to lost agriculture production.

The Florin Resource Conservation District opposes the Preferred Alternative, C-1 and supports the proposed Alternative, A-1.


William Hansen
Director, Florin
Resource Conservation District

cc: The Honorable John Seymour
U. S. Senate.
The Honorable Vic Fazio
U. S. House of Representatives.
The Honorable Robert Matsui
U. S. House of Representatives.
Grantland Johnson, County Supervisor, District 1.
Illa Collin, County Supervisor, District 2.
Sandra Smoley, County Supervisor, District 3.
Jim Strong, County Supervisor, District 4.
C. Tobias Johnson, County Supervisor, District 5.

A-4-68

C - 0 5 7 0 7 0

C-057070

Responses to Comments from the Florin Resource Conservation District

1. The Florin Resource Conservation District's (RCD) opposition to all the NWR alternatives requiring acquisition of private lands is noted.
2. Refer to the response to comment 10 by DFA.
3. Alternative C1 would result in conversion of an estimated 8,457 acres of agricultural land, including 1,696 acres of prime farmland and an annual loss in farm production valued at approximately \$1.75 million. Based on output multipliers developed by University of California Cooperative Extension for the Sacramento Basin, a \$1.75 million decrease in farm output would result in a total reduction in regional output valued at approximately \$3.5 million.
4. The goals of the proposed Stone Lakes NWR project are stated on page 1-7 of the final EIS. One of the goals is to "coordinate refuge land acquisition and management activities with other agencies and organizations to maximize the effectiveness of refuge contributions to regional habitat needs". Within the NWR acquisition boundary, the USFWS would seek to acquire a sufficient interest in lands to accomplish refuge goals. Lands within the boundary that are in a protected status consistent with the overall refuge goals would not be considered a high priority for acquisition. Factors considered important in determining protected status would include commitment to perpetual, nondevelopment covenants; habitat restoration and enhancement objectives; and migratory bird foraging and sanctuary requirements. If the North Delta Conservancy, or any other landowner, private organization, or agency, can accomplish these goals in the NWR area, USFWS acquisition may not be necessary. Any property enrolled in such a program would not be considered part of the NWR, but would be managed as a component of a cooperative wildlife management area. Such areas could be managed to preserve and enhance both agriculture and wildlife values.
5. The Florin RCD's support of a refuge alternative (A-1) that includes only existing public lands north of Hood-Franklin Road and inclusion of lands south of Hood-Franklin Road in the North Delta Conservancy is noted.

A-4-70

C - 0 5 7 0 7 2

C-057072

CITY OF ISLETON

(916) 777-7770
Fax# (916) 777-7775

210 Jackson Boulevard

P.O. Box 716

Isleton, Sacramento Co., California 95641

OCT 15 1991

RESOLUTION NO. 1178

RESOLUTION SUPPORTING LOWER CONSUMNES
RESOURCE CONSERVATION DISTRICT

WHEREAS, we are a part of the Lower Consumnes Conservation District and our concerns are coincidental; and,

WHEREAS, we want to see our resources, natural and man made, preserved in a manner beneficial to all; and,

WHEREAS, long term resource planning is in the best interest of the environment and our children.

THEREFORE, BE IT RESOLVED, we support the Lower Consumnes Resource Conservation District in their efforts to correct the deficiencies in the Jones & Stokes EIS as it pertains to the U.S. Fish and Wildlife Service, National Wildlife Refuge and issues such as,

Flood protection

Loss of agriculture jobs

Decreased land values

Condemnation of private land

Introduction of Endangered Species

Restricted use of adjoining land

Loss of lending agency support

Health and Safety issues such as

1. Mosquito and vector control

2. Fire and Safety Protection

3. Reclamation - flood control

Loss of tax revenue for schools and services

Prohibition of recreation use as we know it.

PASSED AND ADOPTED this 10th day of October, 1991, by the following vote, to-wit:

AYES: Councilmembers: Andersson, Hendren, Maria, Wade, Maxey

NOES: Councilmembers: None

ABSENT: Councilmembers: None

ABSTAIN: Councilmembers: None

ATTEST:

John E. Holden
City Clerk

Luana M. Maxey
Mayor

A-4-71

OCT 15 1991

FISH AND WILDLIFE SERVICE
NATIONAL WILDLIFE REFUGE
SACRAMENTO, CALIFORNIA

CITY OF ISLETON

210 Jackson Boulevard

P.O. Box 716

Isleton, Sacramento Co., California 95641

(916) 777-7770

Fax# (916) 777-7775

RESOLUTION NO. 1179

RESOLUTION SUPPORTING NORTH DELTA CONSERVANCY

WHEREAS, our neighbors in and near the Stone Lake Area, are witnessing an intrusion of state and federal planning that will ultimately effect the City of Isleton; and,

WHEREAS, the North Delta Conservancy is formed as a non-profit organization, to protect and preserve valuable resources, rights and environmentally sensitive issues; and

WHEREAS,

1. Research and education,
2. Wildlife protection and habitat restoration
3. Private ownerships of rural and residential property is not now being addressed to the current owners and users satisfaction.

THEREFORE, BE IT RESOLVED, to support North Delta Conservancy in their efforts to correct the deficiencies in the Jones & Stokes EIS as it pertains to the U.S. Fish and Wildlife Service, National Wildlife Refuge and issues such as,

Flood protection

Loss of agriculture jobs

Decreased land values

Condemnation of private land

Introduction of Endangered Species

Restricted use of adjoining land

Loss of lending agency support

Health and Safety issues such as

1. Mosquito and vector control
2. Fire and Safety Protection
3. Reclamation - flood control

Loss of tax revenue for schools and services

Prohibition of recreation use as we know it.

PASSED AND ADOPTED this 10th day of October, 1991, by the following vote, to-wit:

AYES: Councilmembers: Andersson, Hendren, Maria, Wade, Maxey

NOES: Councilmembers: None

ABSENT: Councilmembers: None

ABSTAIN: Councilmembers: None

ATTEST:

City Clerk

Mayor

A-4-72

Responses to Comments from the Isleton City Council

1. The Isleton City Council's support of the North Delta Conservancy's efforts to correct deficiencies in the Stone Lakes NWR project EIS is noted.

A-4-74

C - 0 5 7 0 7 6

C-057076

Lodi Parks & Recreation Department

July 30, 1991

U.S. DEPT. OF INTERIOR

Mr. Peter Jerome, Refuge Manager
U.S. Fish and Wildlife Service
2233 Watt Avenue, Suite 375
Sacramento, CA 95825

JUL 31 1991

U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA

Dear Mr. Jerome:

As Parks Superintendent for the City of Lodi, I oversee a small nature area situated along the Mokelumne River. As you are aware, the riparian habitat has diminished somewhere in the neighborhood of 95% over the last 100 years. Unfortunately, the remaining habitat is threatened with development and overdraining of our river systems.

I am pleased to see that the Department of Interior is considering a Stone Lakes National Wildlife Refuge. I believe that Jones & Stokes Associates, Inc. have done a good job in outlining the areas that could be preserved. Unfortunately, the recommendation doesn't go far enough. If you look at our map outlining areas of 100-year floodplain, it is clear that all of the areas within the 100-year floodplain should be preserved. This would include areas of the Cosumnes River that could easily flood at any given time. It is interesting that the majority of the prime farm lands occur along this floodplain.

It will be a shame if the lands along the Cosumnes River are allowed to be developed. For this reason, I am appealing to you to include all the lands along the floodplain in the Cosumnes River area and expand the Stone Lakes National Wildlife Refuge as the Cosumnes River and Stone Lakes Wildlife Refuge.

Sincerely yours,

Scott Essin

Scott Essin
Parks Superintendent

SE:srb

P.S. I would also favor allowing private preserves for those who do not want to be part of the national preserve. This would be with the stipulation that private preserves be dedicated in perpetuity.

A-4-75

125 NORTH STOCKTON STREET • LODI, CALIFORNIA 95240 • TELEPHONE (209) 333 - 6742

C - 0 5 7 0 7 7

C-057077

Responses to Comments from the Lodi Parks and Recreation Department

1. The commenter's recommendation to include all the lands in the Cosumnes River floodplain in a "Cosumnes River and Stone Lakes NWR" is noted.
2. The commenter's recommendation that private preserves dedicated in perpetuity be allowed is noted.



Lower Cosumnes Resource Conservation District

U.S. DEPT. OF INTERIOR

2001 Vesta Way, Sacramento, CA 95864
(916) 485-9883

SEP 3 1991

U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA

August 29, 1991

U.S. Fish and Wildlife Service
Sacramento Realty Field Office
Planning Branch
2233 Watt Avenue, Suite 375
Sacramento, CA 95825-0509

Attn: Mr. Peter Jerome

Re: Comments, Proposed Stone Lakes Wildlife Refuge DEIS.

Dear Mr. Jerome:

After review of the Draft Environmental Impact Statement (DEIS) concerning the above referenced project the Lower Cosumnes Resource Conservation District (RCD) must oppose the Preferred Alternative C-1, and all other Alternatives requiring acquisition of private lands.

1

The proposed project as described in the DEIS is very vague. No specific plan is put forth regarding amount and location of seasonal and permanent wetlands. In numerous places in the document it is stated that due to the lack of detail regarding refuge facilities, management proposals, etc., only a general discussion could be presented. This lack of detail is a major concern to farmers and other landowners in the area. The RCD recommends that the Fish and Wildlife Service work with local individuals and groups, to develop a clear and concise proposal, including a detailed management plan with full public input and environmental review.

2

The Preferred Alternative at completion would result in the conversion of approximately 10,000 acres of agriculture land, including 2,800 acres of Prime Farmland, resulting in the loss of approximately \$2.4 million annually in agriculture production. Direct farm commodity reduction of \$2.4 million annually equates to a loss of \$7.2 million annually to the local economy.

3

A-4-77

CONSERVATION - DEVELOPMENT - SELF-GOVERNMENT

C - 0 5 7 0 7 9

C-057079

Pg. 2
Lower Cosumnes RCD
DEIS comments

A group of local farmers is working to establish the North Delta Conservancy (NDC). Another potential project alternative, referred to as Alternative A-1, would be for the Fish and Wildlife Service to support establishment of the Conservancy and work closely with the Conservancy for implementation of their proposal.

4

Alternative A-1 suggest the formation of a Wildlife Refuge on existing Public Lands north of Hood-Franklin Road. Lands south of Hood-Franklin Road would be placed in the NDC, and with deed restrictions, would be used only for agriculture purposes and wildlife habitat. This Alternative could be in place in considerably less time than the 15 years proposed for acquisition by the USF&WS. Also, Alternative A-1 would not require the expenditure of \$40 million for acquisition, nor create a \$7.2 million annual loss to the local economy due to lost agriculture production.

The Lower Cosumnes Resource Conservation District opposes the Preferred Alternative, C-1 and supports the proposed Alternative, A-1.

5

William Shelton

William Shelton
Chairman, Lower Cosumnes
Resource Conservation District

cc: The Honorable John Seymour
U. S. Senate

The Honorable Vic Fazio
U. S. House of Representatives

Grantland Johnson, County Supervisor, District 1

Illa Collin, County Supervisor, District 2

Sandra Smoley, County Supervisor, District 3

Jim Strong, County Supervisor, District 4

C. Tobias Johnson, County Supervisor, District 5

A-4-78

Responses to Comments from the Lower Cosumnes Resource Conservation District

1. The Lower Cosumnes RCD's opposition to all the NWR alternatives requiring acquisition of private lands is noted.
2. Refer to the response to the DFA's comment 2.
3. Refer to the response to the Florin RCD's comment 3.
4. Refer to the response to the Florin RCD's comment 4.
5. The Lower Cosumnes RCD's support of a refuge alternative (A-1) that includes only existing public lands north of Hood-Franklin Road and inclusion of lands south of Hood-Franklin Road in the North Delta Conservancy is noted.

A-4-80

C - 0 5 7 0 8 2

C-057082

OFFICE OF
RECLAMATION DISTRICT NO. 3

GRAND ISLAND

P.O. BOX 104
RYDE, CALIFORNIA 95680

WHEREAS : Reclamation District NO. 3 a public taxing agency created by the Water Code of the State of California, for the purposes of protecting lives and properties from flood.

WHEREAS: Since it's formation in 1883 District NO. 3 has engaged in the process of reclamation of swamp lands for the purposes of providing flood protection for the lives and property as well as creating valuable farm land in the Sacramento Delta. WHEREAS: As a public taxing agency, Reclamation District NO. 3 regularly collects taxes and makes improvements for the benefit of all residents, farms, properties and people within it's district boundaries.

WHEREAS: Reclamation District NO. 3 operates under the laws of the State of California, the laws of the Federal Government and the rules and regulations of the numerous regulatory agencies that affect operations of the district, including flood control, FEMA, environmental protection agencies, State Department of Fish and Game, U.S. Fish and Wildlife, State Reclamation Board, U.S. Corp of Engineers and other Federal agencies to operate for the benefit of the public good and protection of licenced property.

WHEREAS: The U.S. Fish and Wildlife has proposed a greatly expanded project which will adversely impact the operations and public mandated duties of said Reclamation District.

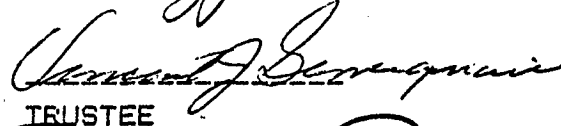
It IS THEREFORE RESOLVED by the Publicly Board of Trustees of Reclamation District NO. 3 that they oppose the present proposed boundaries as set forth by the U.S. Fish and Wildlife Service in the recently drafted Environmental Impact Statement. The said proposed boundaries will adversely affect the ordinary and regulated public mandated duties of this District. It is therefore further resolved that if a U.S. Fish and Wildlife project is to be established in Sacramento County, that said project be limited to publicly owned lands that will not adversely affect the tax base nor operations of Reclamation District NO. 3.

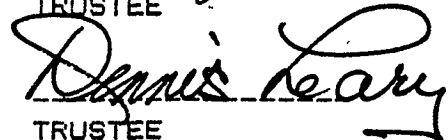
DATED: September 18, 1991

DATED: September 18, 1991

DATED: September 18, 1991


TRUSTEE


TRUSTEE


TRUSTEE

A-4-81

C - 0 5 7 0 8 3

C-057083

Responses to Comments from Reclamation District 3

1. Reclamation District 3's recommendation that the NWR be limited to publicly owned lands that will not adversely affect the tax base or operations of the district is noted. A discussion of the effects of reduced property tax revenues on reclamation districts is included in Chapter 5L, "Environmental Consequences: Socioeconomic and Fiscal Conditions", of the final EIS. Property tax revenues lost to Sacramento County and to special districts in the county because of private land acquisitions by USFWS would generally be compensated by federal reimbursements required by the Refuge Revenue Sharing Act. Federal payments could occasionally constitute less than full reimbursement for foregone property tax revenues. However, mitigation measure 5L.4 would establish a special federal contingency fund to avert such revenue shortfalls and, if adopted by the USFWS, would mitigate the impacts of shortfalls.

U.S. DEPT. OF INTERIOR

SEP 3 1991

Resolution for Reclamation District 369

WHEREAS, Reclamation District No. 369 is a public taxing agency created by the Water Code of the State of California for the purposes of protecting lives and properties from flood damage

WHEREAS, since its formation in 1880 District No. 369 has engaged in the process of reclamation of swamp lands for the purposes of providing flood protection for the lives and property as well as creating valuable farm land in the Sacramento Delta. WHEREAS, as a public taxing agency, Reclamation District No. 369 regularly collects taxes and makes improvements for the benefit of all residents, farms, properties and people within its district boundaries.

WHEREAS, Reclamation District No. 369 operates under the laws of the State of California, the laws of the Federal Government and the rules and regulations of the numerous regulatory agencies that affect operations of the district, including flood control, FEMA, environmental protection agencies, State Department of Fish and Game, U.S. Fish and Wildlife, State Reclamation Board, U.S. Corp of Engineers and other Federal agencies to operate for the benefit of the public good and protection of licensed property.

WHEREAS, the U.S. Fish and Wildlife has proposed a greatly expanded project which will adversely impact the operations and public mandated duties of said Reclamation District.

IT IS THEREFORE RESOLVED by the Board of Trustees of Reclamation District No. 369 that they oppose the present proposed boundaries as set forth by the U.S. Fish and Wildlife Service in the recently drafted Environmental Impact Statement. The said proposed boundaries will adversely affect the ordinary and regulated public mandated duties of this District. It is therefore further resolved that if a U.S. Fish and Wildlife project is to be established in Sacramento County, that said project be limited to publicly owned lands that will not adversely affect the tax base nor operations of Reclamation District No. 369.

DATED: August 29, 1991


CLARENCE K. CHU, Trustee

Responses to Comments from Reclamation District 369

1. Refer to the response to comment 1 by Reclamation District 3.

U.S. DEPT. OF INTERIOR

SEP 5 1991

RECLAMATION DISTRICT 813
12300 Herzog Road
Courtland, Ca 95615
(916) 775-1479
(916) 775-1153

U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA

Mr. Peter J. Jerome
Project Team Planning Leader
U.S. Fish and Wildlife Service
2233 Watt Ave., Suite #375
Sacramento, Ca. 95825-0509

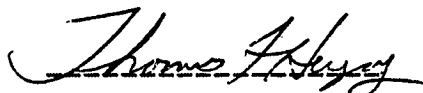
September 2, 1991

Mr. Jerome,

On August 28 our district board of trustees voted on a resolution on the proposed Stone Lakes National Wildlife Refuge. I have enclosed our resolution which is to be entered as part of the EIS. Also the transcript of the steering committee meeting on November 7, 1990 that I presented to you at the meeting of August 29, 1991 is to be entered in the EIS. Comments on the document will be forth coming.

Our district is requesting information on the Land Protection Plan and the Endangered Species Act since this was never addressed in the draft EIS. We would like to see the government policy that is written governing the Land Protection Plan. On the Endangered Species Act we would like a copy of the Act and how this Act is applied by your service. Also you stated the transcripts of the public hearings would be ready this week some time. Please call me and I will come up to your office and get them.

We appreciate your cooperation. Thank You.



Thomas F. Herzog, President
Reclamation District 813

Enclosure

cc: Senator John Seymour
Congressman Vic Fazio
Members of the Board of Supervisors
Manual Lujan, Jr. Secretary of the Interior
John Turner, Director USFWS
Marvin L. Plenert, USFWS
Christopher Lee, Attorney at law
South Sacramento Preservation Council
Interested Parties

Rd: USFWS 1b

A-4-85

C - 0 5 7 0 8 7

C-057087

Resolution of Reclamation District 813

WHEREAS : Reclamation District 813, a public taxing agency created by the Water Code of the State of California, for the purposes of protecting lives and properties from flood.

WHEREAS: Since the early 1900's District 813 has engaged in the process of reclamation of swamp lands for the purposes of providing flood protection for the lives and property as well as creating valuable farm land in the Sacramento Delta. WHEREAS: As a public taxing agency, Reclamation District 813 regularly collects taxes and makes improvements for the benefit of all residents, farms, properties and people within it's district boundaries.

WHEREAS: Reclamation District 813 operates under the laws of the State of California, the laws of the Federal Government and the rules and regulations of the numerous regulatory agencies that affect operations of the district, including flood control, FEMA, environmental protection agencies, State Department of Fish and Game, U.S. Fish and Wildlife, State Reclamation Board, U.S. Corp of Engineers and other Federal agencies to operate for the benefit of the public good and protection of licenced property.

WHEREAS: The U.S. Fish and Wildlife has proposed a greatly expanded project known as the Stone Lakes National Wildlife Refuge which will adversely impact the operations and public mandated duties of said Reclamation District.

It IS THEREFORE RESOLVED by the Publicly Board of Trustees of Reclamation District 813 on August 28, 1991 that they oppose the present proposed boundaries as set forth by the U.S. Fish and Wildlife Service in the recently drafted Environmental Impact Statement. The said proposed boundaries will adversely affect the ordinary and regulated public mandated duties of this District. It is therefore further resolved that if a U.S. Fish and Wildlife project is to be established in Sacramento County, that said project be limited to publicly owned lands that will not adversely affect the tax base nor operations of Reclamation District 813.

2

Arthur H. Jonson

Arthur H. Jonson, trustee

Thomas F. Herzog

Thomas F. Herzog, trustee

Robert S. Abercrombie

Robert Abercrombie, trustee

A-4-86

C - 0 5 7 0 8 8

C-057088

Responses to Comments from Reclamation District 813

1. A discussion of the purpose and requirements for a land protection plan and its relationship to the final EIS and ROD has been included in Chapter 1, "Introduction", of the final EIS. The draft land protection plan for the Stone Lakes NWR project has been prepared as a separate document from the final EIS; copies are available from the USFWS, Stone Lakes Realty Office, 2233 Watt Avenue, Suite 375, Sacramento, CA 95825.
2. Refer to the response to comment 1 by Reclamation District 3.

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DEPARTMENT OF
PUBLIC WORKS

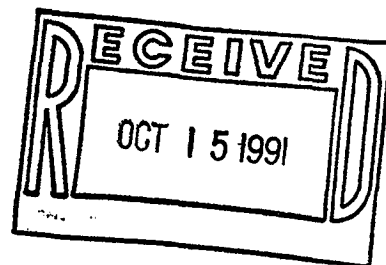
DIVISION OF
FLOOD CONTROL AND SEWERS

CITY OF SACRAMENTO
CALIFORNIA

1391-35TH AVENUE
SACRAMENTO, CA
95822-2911

916-449-5271

October 15, 1991
91923:MR:ds



U.S. Fish and Wildlife Service
Division of Realty, Planning Branch
2233 Watt Avenue, Suite 375
Sacramento, CA 95825-0509

**SUBJECT: COMMENTS UPON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT
FOR THE PROPOSED STONE LAKES NATIONAL WILDLIFE REFUGE**

Dear Sirs:

After reviewing the Draft Environmental Impact Statement (DEIS) for the proposed Stone Lakes National Wildlife Refuge (SLNWR) the City of Sacramento Department of Utilities, Flood Control and Sewers Division has the following comments:

1. On page 1-4, the DEIS states that the Corps of Engineers Morrison Creek Stream Group project was de-authorized. According to the U.S. Army Corps of Engineers, Sacramento District Planning Division, the project has not been de-authorized.

1

The City is currently pursuing a Corps of Engineers reconnaissance study scheduled to begin October 1991. The City has also gained the support of the California Water Commission in requesting \$600,000 from the fiscal year 1992-1993 Federal budget to fund a renewed study of the flooding potential within the urban areas of the Morrison Creek Stream Group.

2. If habitat mitigation is required as part of the proposed Morrison Creek Stream Group project, we would prefer that mitigation credit be given on a regional basis

2

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over the entire basin area. This would be especially true if the SLNWR is seen as an environmental enhancement of the drainage basin.

2

3. Review by the City of Sacramento Flood Control and Sewer Division should be required for any new or modified levees, berms, channel constrictions which may affect drainage patterns or water surface elevations within the regional flood control system of the Morrison Creek Stream Group and Beach-Stone Lakes area.

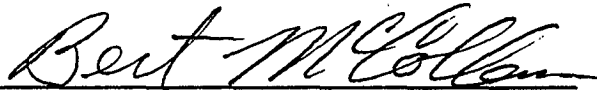
3

4. The Stone Lake National Wildlife Refuge boundary should not include any flood control works such as the northern levee of Beach Lake. This levee protects a large urban population that includes the Meadowview and Pocket areas of the City of Sacramento. Therefore sufficient right-of-way must be preserved for operation and maintenance purposes. The northern boundary of the proposed Stone Lake National Wildlife Refuge should be 10 feet from the southern toe of the north levee of Beach Lake.

4

We appreciate the opportunity to comment upon this DEIS. Please contact Marvin Reid regarding these comments at 449-6290.

Sincerely,



Albert E. McCollam Jr., Division Manager
Flood Control and Sewers Division

cc: Fran Halbakken, Senior Engineer

A-4-90

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C-057092

Responses to Comments from the Sacramento City Department of Public Works, Division of Flood Control and Sewers

1. Comment noted. The final EIS has been revised to correct this information. Delete the second sentence, paragraph two, page 1-4, and replace it with the following:

At present, the Corps is planning a reconnaissance study of the Morrison Creek Stream Group. The city, with the support of the California Water Commission, is pursuing federal funding for a renewed study of the flooding potential within the urban areas of the Morrison Creek Stream Group (McCollam and DeVore pers. comms.). It is likely that the county will support the renewed Corps studies and assist in implementing recommended projects. The Lambert Road flood control facility proposed by the earlier Corps studies remains an alternative for accomplishing all or part of the lowering of peak flood levels which is required for the protection of southern Sacramento County.

Revise the last sentence in the paragraph to read: "Although many of the original flood control facilities were completed by local agencies, the original mitigation program involving establishment of a Stone Lakes NWR has not been implemented".

2. Impacts of future flood control improvement projects in the Morrison Creek basin will be evaluated under a separate environmental review process. No specific flood control project proposal for the Morrison Creek Stream Group has been presented at this time. When an environmental document has been prepared by the responsible local lead agency, USFWS's Environmental Services branch will comment on the flood control project's adverse effects on biological resources and will evaluate the efficacy of proposed mitigation measures. Proposals to consolidate mitigation efforts throughout the length of Morrison Creek and its tributaries, including the possibility of mitigation banks in or adjacent to the Stone lakes NWR, will be considered by the USFWS at that time.

The USFWS considers avoidance of impacts on biological resources to be the highest priority of project design and planning. If impacts cannot be avoided because of overriding considerations, compensation for habitat lost should generally be in kind, onsite, and of comparable size and quality. In some cases, consolidation of several mitigation sites into one larger site in the general vicinity of the affected areas may be preferable if overall habitat quality is greater, compared to many smaller sites.

3. The USFWS agrees that any new or modified levees, berms, and channel constrictions that may affect drainage patterns or water surface elevations within the Morrison Creek and Beach-Stone Lakes regional flood control systems must first be reviewed by the City of Sacramento Flood Control and Sewer Division. Interference with local flood management is a recurrent theme of both public and private sector comment letters, although implementation of the NWR may have only a minor effect on local flood control facilities and operation. Mitigation measures already included as part

of the draft EIS should be sufficient in most instances to eliminate potential impacts on local flood control facilities or operation of these facilities. However, unforeseen future modifications to the local flood control infrastructure or to NWR operation may result in conflicts between NWR and flood management objectives.

To anticipate and prevent future conflicts, USFWS will enter into management MOUs with local reclamation districts and local flood control agencies. These MOUs will include, but not be limited to:

- agency or district review, before implementation, of all USFWS grading and water management plans for the NWR;
- USFWS review of all levee maintenance and flood management plans prepared by local agencies and districts;
- levee and channel maintenance agreements, including channel and levee vegetation management and burrowing animal control;
- agreements for access to and protection of all flood control facilities such as drain pumps, culverts, weirs, and recording stations; and
- flood evacuation and NWR closure plans in the event of a major flood in the Stone Lakes basin.

The MOU described above has been incorporated as part of mitigation measure 5D.6, "Develop and implement a levee and flood control channel maintenance program for the NWR consistent with existing flood control policies", in the final EIS.

4. Comment noted. Refer to the response to comment 3.



COUNTY OF SACRAMENTO

FRANK E. CARL
AGRICULTURAL COMMISSIONER
DIRECTOR OF WEIGHTS AND MEASURES

4137 BRANCH CENTER ROAD . SACRAMENTO, CALIFORNIA 95827
TELEPHONE (916) 366-2003

August 30, 1991

U.S. DEPT. OF INTERIOR

U.S. Fish and Wildlife Service
Sacramento Realty Field Office
Planning Branch
2233 Watt Avenue, Suite 375
Sacramento, California 95825

AUG 30 1991

U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA

Dear Sirs,

In response to your requests for comments on the Draft Environmental Impact Report for the Proposed Stone Lakes National Wildlife Refuge I would like to bring your attention to the following:

Page 15, Executive Summary, Pie Chart, refers to total Agricultural Production Sacramento County... this chart is inaccurate in it's content as well as it's total. The individual crop totals are inaccurate and the total crop value indicated is less than one half of the 1990 crop value. | 1

Page 15, Executive Summary, Bar Chart, Sacramento County Crop Production Values and Projected Production Losses Under Each NWR Alternative... The production loss for each of the alternatives appears to be mathematically inaccurate; the chart is confusing and difficult to interpret. | 2

Page 16, Executive Summary, Bar Chart, Changes in Employment... I believe it needs to be considered that the losses of Agricultural Employment, represents a loss of productive employment. Agriculture is one of the few industries in the area, or the nation, that generates dollars and jobs by virtue of the productivity of the industry, as opposed to the consumptive, service oriented activity of more government employment, or civilian employment associated with a wildlife refuge. | 3

Figure 4D-9 Irrigation and Drainage Facilities in the Stone Lakes NWR Study Area... The irrigation map is outdated and inaccurate. Certainly a more up to date drainage plan should be used considering the development that has occurred in the area north and east of the proposed NWR. What is the current drainage plan? What will be the effects of the refuge on storm drainage from agricultural crops? | 4

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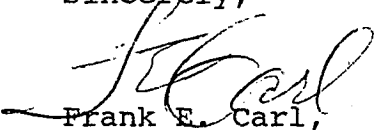
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Page 5J-35 Loss of Agricultural Production... the annual loss to growers is only a part of the impact. Each dollar of agricultural production generates from three to five dollars in the associated economy. When production is decreased, the loss of that production effects the chemical dealer, equipment dealer, farm labor, the farm labor contractor, the packing shed or processor, storage facilities, seed producers and distributors, and more. Figures are available from the University of California Agricultural Extension regarding the multiplication factors for various crops and the value of crop production to the economy.

Each of the proposed alternatives, except alternative "A", would remove prime agricultural soil from production. The removal of 3,798 acres of prime agricultural soil, as proposed in alternative "C" is a significant adverse effect on the agricultural environment of the area, and is, in my view, an unacceptable use of our limited natural resources.

Although I do not feel that a wildlife refuge is necessarily incompatible with agriculture, I think that this particular project will have a significant and unnecessary impact on the agriculture of this area. When other areas are available within close proximity, that are not intensively farmed, or don't have the variety of crops that will potentially be effected, I feel it is unwise to establish such a large project in this location.

Sincerely,


Frank E. Carl,
Agricultural Commissioner and
director of Weights & Measures

A-4-94

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C-057096

Responses to Comments from the Sacramento County Agricultural Commissioner and Director of Weights and Measures

1. Comment noted. The pie chart illustrating total agricultural production in Sacramento County has been corrected in the executive summary for the final EIS.
2. Comment noted. The bar graph illustrating projected production losses under each of the NWR alternatives has been corrected and updated in the executive summary for the final EIS.
3. Comment noted. No response is necessary.
4. The commenter is correct that the irrigation and drainage facilities map is outdated. A more current map showing comprehensive and detailed locations of drainage and irrigation canals and ditches in the NWR study area does not exist at this time. The map in Figure 4D-9 was included in the draft EIS and final EIS to indicate the general character and high density of irrigation and drainage infrastructure that exists within certain PUs near the North Delta. Landowner and agency commenters on this topic did not offer any alternative source or more recent information that may be available. It appears that few changes have occurred in the location of primary collector drains, sump pumps, or irrigation supply canals since the map shown in Figure 4D-9 was prepared, although upgrades of siphon pumps and culverts are known to have occurred.

The draft EIS and final EIS clearly state that the NWR may potentially affect local drainage infrastructure. Maintaining seasonal wetland habitats in winter months may increase the rate of seepage into these adjacent ditches. A monitoring and avoidance program must be developed by the USFWS to mitigate for these potential impacts. A site analysis and monitoring program will be implemented before construction and operation of the NWR, with particular emphasis on those lands below the 5-foot elevation and lands having a high density of collector drains in areas with typically shallow water tables.

For additional discussion of this issue and possible mitigation and avoidance measures, see "Response to Major Issues - Seepage and Local Drainage Effects".

The USFWS has not developed sufficient details of the refuge to analyze specific local effects. When the USFWS develops a specific refuge plan for wetlands in each parcel, the impacts of the proposed plan on the current irrigation and drainage infrastructure will be investigated in detail. The intent of this draft EIS is not to analyze detailed site-specific effects of the proposed refuge, but rather to identify the potential overall effects of such a refuge. Given the present conceptual level of detail of the proposed Stone Lakes NWR, the draft EIS sufficiently addresses the potential effects of the refuge on existing irrigation and storm drain infrastructure.

5. Economic multipliers used in assessing impacts of agriculture displacement on regionwide employment were taken from the most recent input-output models for the Sacramento Basin published by the University of California Cooperative Extension. For the crops grown in the study area, labor multipliers range from 1.58 to 2.65 (see Table 5L-6 in the final EIS).
6. Comment noted. The conversion of prime agricultural land under Alternative C was identified in the draft and final EIS as a significant, adverse, and unavoidable impact.

Sacramento County - Yolo County

1650 SILICA AVENUE
SACRAMENTO, CALIFORNIA 95815
TELEPHONE 916/922-6526
FAX: 916/924-1071

MOSQUITO ABATEMENT DISTRICT

ALLEN R. HUBBARD, MANAGER
IRVIN R. SCHAUER, ASSISTANT MANAGER
THERESA G. STRATTON, OFFICE MANAGER
DAVID A. BROWN, ADMINISTRATIVE ASSISTANT

STEVE V.
DAVE P.
PETE J.
STEVE D.
LARRY H.
DARCY M.
ANDREA W.
MARK S.
BILL G.

Peter Jerome
U.S. Fish and Wildlife Service
2233 Watt Avenue, Suite 375
Sacramento, CA 95825-0509

July 10, 1991

Dear Pete,

I have recently finished reviewing the Draft Environmental Impact Statement for the Stone Lakes National Wildlife Refuge. I would like to initiate my comments by saying that I am very much impressed with the amount of consideration given to water management for suppression of mosquito populations on the Refuge. I am very much encouraged that if the guidelines addressed within the Draft EIS are followed, the development of the wetlands within the Refuge will support a minimal number of mosquitoes. This projected situation would be very different from other wetland developments on wildlife reserves in the Sacramento Valley, for example, in the Colusa National Wildlife Refuge and at the Gray Lodge Wildlife Refuge. The importance of controlling mosquito populations is always present, but it becomes critical when wetlands occur in close proximity to urban development such as with the Stone Lakes NWR. Mosquitoes not only have the ability to lower public opinion about the NWR through nuisance of guests and nearby residents, but have the potential of bringing serious mosquito-borne diseases to the local animal and human populations.

Most of the following comments are meant to clarify or to slightly modify some of the statements already included in the Draft EIS concerning the suppression of mosquito populations. Each comment is referenced to the particular page in the Draft EIS.

- Page 2-5: It should be noted that mosquito populations are rarely completely controlled but only suppressed and that even under the best of conditions mosquitoes will be produced wherever water occurs for more than three days.
- Page 2-7: The Sacramento/Yolo Mosquito and Vector Control District (SYMVCD) should be included in the development of criteria relating to wetland construction.
- Page 3A-25 Exceptions for the 2,000 foot limit for planes should be made for SYMVCD in the event of seriously high mosquito population levels. High mosquito population levels are those established for disease vectoring species by research medical entomologists and epidemiologist. Nuisance levels are established by historical data for each given region.
- Page 3B-7 Under cropland enhancement the use of shallow flooding of fields should not occur during warm mosquito breeding seasons, generally between May and October.
- Page 4E-14 It should be noted that newly created vernal pools and ephemerally wet swales often provide optimum conditions for mosquito larval populations.
- Page 4E-15 Aquatic bed communities which consist of floating and mating vegetation provide harborage for larval mosquitoes.
- Page 4L-2 It is likely that despite all control procedures, mosquito populations will occasionally increase to treatable levels and will therefore have a fiscal impact on SYMVCD. If mosquito suppression is unsuccessful on the NWR than it is likely that adjacent real estate values could be lowered

A-4-97

JUL 10 1991

U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA

U.S. DEPT. OF INTERIOR

due to the excessive annoyance problems often associated with large mosquito populations.

Page 5D-22 Drainage and irrigation seepage is a serious mosquito larval development problem. Design of the interceptor ditches should follow the guidelines SYMVCD has submitted for the control of mosquito populations.

Page 5D-29 Mitigation to reduce the disease impact to both wildlife and human populations from mosquito vectors needs to include two additional measures:

5D.11. Develop and implement a water management program for all wet areas on the NWR.

5D.12. Implement basin design as stated in the mosquito suppression guidelines.

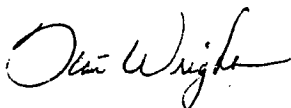
Page 5D-44 The elements listed for the control of mosquito populations should include the following additions:

- Deep areas should be kept at a minimum of three feet during summer months (May to October); water level needs to be maintained without fluctuations except during winter months.
- All shallow areas (less than three feet) need to be completely dry during optimum mosquito development season (May to October).
- Some provisions for aquatic vegetation management need to be established.
- Levees, drain ditches and other water structures need to be constructed and maintained to prevent seepage into adjacent lowland areas.
- Levee faces need to be steeply-sloped to limit growth of marginal vegetation.
- Dikes or drains should have steep slopes (1.5-2 foot horizontal to one foot vertical) to allow adequate drainage without standing water, and needs to be maintained free of vegetation.
- The SYMVCD needs the option to use any EPA approved and labeled pesticide that is determined to be the most effective for the given job.

The SYMVCD strongly supports the development and implementation of this wetland management program which is outlined partially here and in the Draft EIS. The program is designed primarily for the suppression of mosquito populations but can be flexible to meet the needs of other wildlife when needed. We recommend that the USFWS incorporate these wetland management guidelines into their overall Stone Lakes NWR management program. The plan should include a process where the USFWS and the SYMVCD cooperatively work to suppress mosquito populations on the refuge for the benefit of wildlife, visiting public and local residents.

I thank you for the opportunity to review and comment on the Stone Lakes NWR Draft EIS. Please address any questions to myself at 421-7771 or Dave Brown at 922-6526.

Sincerely,



Stan Wright

A-4-98

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C-057100

Responses to Comments from the Sacramento County and Yolo County, Mosquito Abatement District

1. Comment noted. These and other aspects of mosquito population dynamics are described in detail in a new chapter in the final EIS, Chapter 4M, "Affected Environment: Mosquitos and Public Health".
2. Comment noted. The text on page 2-11 of the draft EIS has been revised to replace the word "controlled" with the word "suppressed". Mosquito production could occur in as little as 3 days under the most favorable conditions in the peak breeding season that coincides with high ambient temperatures (i.e., typically in July and August).
3. Comment noted. This requirement is included in mitigation measure 5M.1, "Develop and implement a comprehensive mosquito suppression program", recommended for Alternatives B through E. This requirement has been incorporated as part of the project description for the Mitigated Preferred Alternative in the final EIS.
4. Comment noted. The last sentence on page 3A-29 of the draft EIS has been revised to include the phrase "and to allow for essential applications of approved mosquito control larvicides."
5. Comment noted. Cropland enhancement for secondary wildlife habitat value will typically include shallow winter flooding of harvested crop fields on private lands under easement. The comment expresses concern about flooding of cropland that may persist into the primary mosquito breeding season of October through May. This is unlikely to occur on private farmland because a longer flood season would interfere with fall harvest or spring planting activity.
6. Vernal pools by definition are wet only during the rainy season when temperatures are too low to support problem levels of mosquito breeding. However, urban or agricultural tailwater that inadvertently drains into these depressions and swales may create serious breeding conditions in the warm season. This is a common occurrence at livestock watering troughs placed in typical vernal pool landscapes.
7. Comment noted. This fact is included in the discussion of typical mosquito breeding conditions in Chapter 4M.
8. As discussed in Chapter 5M, "Environmental Consequences: Mosquitos and Public Health", the proposed refuge would be managed to avoid outbreaks of mosquito populations. The possibility of large mosquito populations moving from the refuge to residential neighborhoods with sufficient persistence to affect property values is remote.

9. The comprehensive mosquito suppression program recommended in mitigation measure 5M.1 for Alternatives B through E and included as a part of the project description for the Mitigated Preferred Alternative will include guidelines to prevent seepage or poorly drained NWR lands from providing mosquito habitat. Interceptor ditches will be kept clear of dense emergent vegetation to ensure good drainage and to allow mosquitofish and other natural predators easy feeding access to mosquito larvae that may be present in the ditches.
10. These measures would be included in the comprehensive mosquito control program described in mitigation measure 5M.1 for Alternatives B through E and included as a part of the project description of the Mitigated Preferred Alternative. The program would also include other measures the USFWS considers necessary to ensure acceptable levels of mosquito suppression within the NWR. Refer to the description of mitigation measures 5M.1 in Chapter 5M of the final EIS.
11. Most of the suggested additions to mosquito control guidelines have been incorporated in mitigation measure 5M.1 in the final EIS.

The USFWS met with SYMVCD staff on October 18, 1991, to discuss mosquito control guidelines for wetlands design and management in the NWR. Only the last of the seven suggested new elements for control of mosquitos is possibly unacceptable to NWR management priorities. SYMVCD suggests that the district be allowed the option to use any EPA-approved and -labeled pesticide that is determined to be the most effective for the given job.

In some cases, the most effective pesticide to do the given job may be considerably more detrimental to other nontarget animal populations than another more costly or somewhat less effective alternative measure. The MOU with SYMVCD will include protocol for a collaborative notification and decision-making process that balances the efficiency of mosquito suppression with essential NWR obligations to protect sensitive fish and wildlife present in treated areas. Based on recent meetings with SYMVCD staff, the USFWS is confident that alternative treatment measures can be selected that allow for the management responsibilities of each agency.

12. As part of the Mitigated Preferred Alternative, the USFWS has agreed to the preparation of a cooperative management agreement with SYMVCD that will include many of the measures and guidelines suggested by SYMVCD in meetings and correspondence with the USFWS during the public comment period on the draft EIS. The USFWS recognizes that suppression of mosquitos and prevention of mosquitoborne diseases is essential to the public's enjoyment and support of the proposed Stone Lakes NWR. A commitment to cooperation with SYMVCD has been demonstrated by the USFWS by numerous recent contacts with district staff on this and other wetlands projects in the region.



COUNTY OF SACRAMENTO
DEPARTMENT OF PARKS AND RECREATION



RECREATION & PARK
AND
FISH & GAME
COMMISSION

ANN KOHL
Chairperson
JOHN W. ANDERSON
ROBERT J. BASTIAN
GEORGE DUPRAY
DR. A.C. UBALDE, JR.

U.S. DEPT. OF INTERIOR

October 2, 1991

OCT 4 1991

U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA

GENE W. ANDAL
Director

RICK CARUNCHIO
Assistant Director

RON SUTER
Chief, Administration and
Leisure Services

ROY IMAI
Chief, Planning & Development

**COUNTY SERVICE
AREAS**

#4B Wilton/Cosumnes
#4C Delta
#4D Herald

Mr. Peter Jerome
U. S. Fish and Wildlife Service
Planning Branch
Sacramento Realty Field Office
2233 Watt Avenue, Suite 375
Sacramento, CA 95825

Dear Mr. Jerome:

The Sacramento County Recreation and Park Commission endorses the proposed Stone Lakes National Wildlife Refuge. Alternative C should be the minimal acquisition goal. Alternatives D and E should be considered as they provide more protection for valuable natural resources and open space in Sacramento County.

The benefits of this project to Sacramento will be tremendous. The refuge will protect a major natural resource area including wetlands, waterways, riparian woodlands and agricultural fields. It will preserve valley wildlife. When the management plan is in place, the site will serve as an important regional interpretive center for Sacramento open space. It will attract visitors from throughout the state and the nation to Sacramento.

The Fish and Wildlife Service's "willing seller" and "good neighbor" policies ensure that agricultural uses will continue in the area. Buffer areas can be developed on public lands to reduce potential conflicts. One example, of many, exists in west Marin County where natural wildlife preserves and agricultural uses have proved to be compatible. Cooperation between environmental and farming interests have enhanced and preserved the economic viability of the rural communities.

3711 Branch Center Road • Sacramento, California 95827 • (916) 366-2061

A-4-101

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C-057103

Mr. Peter Jerome
Page 2
October 2, 1991

We commend the Fish and Wildlife Service on the thoroughness of the Draft Environmental Impact Statement and look forward to the culmination of this important effort.

Sincerely,



Ann M. Kohl
Chairman

cc: Congressman Vic Fazio
Congressman Robert Matsui

AK.jc.91791

A-4-102

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C-057104

Responses to Comments from the Sacramento County Department of Parks and Recreation, Chairperson of the Recreation and Park Commission

1. Comment noted. No response is necessary.
2. Comment noted. No response is necessary.
3. Comment noted. No response is necessary.

A-4-104

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C-057106

DOUGLAS M. FRALEIGH, Director
 W. H. HARADA, Deputy Director
 F. I. HODGKINS, Deputy Director
 TERRY T. TICE, Deputy Director



COUNTY OF SACRAMENTO, DEPT. OF INTERIOR

DEPARTMENT OF PUBLIC WORKS

COUNTY ADMINISTRATION BUILDING • ROOM 304 • 827 SEVENTH STREET
 SACRAMENTO, CALIFORNIA 95814

TELEPHONE: (916) 440-8581
 FAX (916) 440-7100

OCT 15 1991

U.S. FISH AND WILDLIFE SERVICE
 SACRAMENTO, CALIFORNIA

Date: October 15, 1991

Mr. Peter Jerome, Refuge Manager
 U.S. Fish & Wildlife Service
 Sacramento Realty Field Office, Planning Branch
 2233 Watt Avenue, Suite 375
 Sacramento, CA 95825-0509

SUBJECT: REPLY TO ENVIRONMENTAL TROUBLE SHOOTING FOR THE PROPOSED
 STONE LAKES NATIONAL WILDLIFE REFUGE

Dear Mr. Jerome:

In response to your request for comments regarding the above cited
 replies from various Public Works agencies of Sacramento County.

1. Water Resources Division - Refer to the attached letter from
 Keith Devore, Chief of Water Resources Division, dated October
 15, 1991.
2. Water Quality Division - Refer to the attached letter from Roy
 L. Nelson, Buffer Lands Manager, dated October 11, 1991.

If you have any questions regarding this response, please call Bob
 Davison at 440-6525.

Sincerely,

Douglas M. Fraleigh, Director
 Department of Public Works

DMF:RAD
 Attachments

cc: F.I. Hodgkins
 Terry Tice
 Warren Harada
 Keith DeVore
 Robert Shanks

Post-It™ brand fax transmittal memo 7671		# of pages >
To	Peter Jerome	From
Co.	U.S. Fish & Wildlife	Co.
Dept.		Phone #
Fax #	978-4427	Fax #
		440-6525

A-4-105

DOUGLAS M. FRALEIGH, Director
F. I. HODGKINS, Deputy Director
TERRY T. TICE, Deputy Director



COUNTY OF SACRAMENTO

DEPARTMENT OF PUBLIC WORKS

827 - SEVENTH STREET • ROOM 301 • PHONE 440-6851

SACRAMENTO, CALIFORNIA 95814

WATER RESOURCES DIVISION... KEITH DEVORE, Chief

October 15, 1991

U.S. Fish and Wildlife Service
Division of Realty, Planning Branch
2233 Watt Avenue, Suite 375
Sacramento, CA 95825-0509

Dear Sirs:

**SUBJECT: COMMENTS UPON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT
FOR THE PROPOSED STONE LAKES NATIONAL WILDLIFE REFUGE**

The County of Sacramento Department of Public Works, Water Resources Division has reviewed the Draft Environmental Impact Statement (DEIS) for the proposed Stone Lakes National Wildlife Refuge (SLNWR) and has the following comments.

Regarding Water Supply

In regard to the discussion of Local Water Sources, Chapter 2, pages 2-1 & 2-2:

- The County Department of Public Works is one of approximately two dozen organizations operating water maintenance districts in Sacramento County. 1
- Given the existing state of political and environmental sensitivity regarding diversions from the Lower American River, it is highly unlikely that the Folsom South Canal will become a source of water for restored wetlands within SLNWR. It is most probable that groundwater from an overdrafted groundwater basin would have to be used for this purpose. 2

The final document must discuss fully the subject of restored wetlands, addressing in greater detail all issues associated with developing a water source and defining potential annual water demands. 3

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C-057108

Regarding Flood Control

The County requests that the description of the setting and pending plans for flood control within and adjacent to the proposed SLNWR (especially the third paragraph of page 4D-6 and the discussion on pages 5D-24 and 5D-25) be revised and expanded to acknowledge the following developments and comments:

- On page 1-4 the DEIS states that the Corps of Engineers' Morrison Creek Stream Group project was deauthorized. According to the Sacramento District of the Corps, in fact, the project was never deauthorized but was not actively pursued after 1987 because local agencies assumed the initiative to implement several key project features. For various reasons, including recognition of greater flood risk than was indicated by studies in the mid-1980's, several key projects are needed more than ever but may exceed the financial resources of the local agencies.
- The City of Sacramento has gained the support of the California Water Commission in requesting \$600,000 in the fiscal year 1992-93 federal budget to fund renewed study of projects to resolve flood risks along Morrison Creek and its tributaries. It is likely that the County of Sacramento will join with the City in support of these renewed Corps studies and in implementing recommended projects. The Lambert Road flood control facility proposed by the earlier Corps studies remains an alternative for accomplishing all or part of the lowering of peak flood levels which is required for the protection of southern Sacramento County.
- To the extent that habitat mitigation may be required by future local and federal project flood control projects within the Morrison Creek Stream Group, it is logical to accomplish the mitigation within the County buffer lands at the north end of the proposed SLNWR. Negotiation of the cooperative agreement with USF&WS may well involve crediting of habitat mitigation for these potential flood control projects.

Our additional specific comments upon the DEIS follow:

- The goals of the proposed SLNWR (page 1-7) include management consistent with local, state, and federal flood management objectives. Therefore, the County recommends that the objectives of the water management scenarios (described on page 3A-27) be expanded to include

A-4-107

requirements that the existing flood control and drainage functions not be impaired. Specifically, review and approval of Sacramento County DPW should be required for any new or modified levees, berms, channel constrictions, or other features which might affect drainage patterns. (As a participating community in the FEMA Flood Insurance Program, it is mandatory that the County review any plans which could modify mapped floodplains or flood elevations.)

- Refuge boundaries should be drawn to exclude major flood control facilities, as well as facilities (such as railroad grades) which often function as flood control facilities. Where such facilities lie within the proposed SLNWR boundaries, specific provision should be made for both their maintenance and improvement during lands and easements acquisition and negotiation of cooperative agreements. Review and approval of Sacramento County DPW should be required for any modification of levees, railroad grades, or other such features.

Regarding Water Quality

The County of Sacramento DPW strongly opposes, as both very costly and ultimately ineffective, the implementation of the EPA-originated numerical standards adopted by the State in the recently-enacted Inland Surface Waters Plan (ISWP). On page 4D-23, the DEIS states:

The analysis of water quality impacts associated with the NWR assumes that the presence of a federal refuge in the study area will not affect the application or enforcement of water quality standards set forth in the new [ISWP], as applied ... at the point of discharge into receiving water bodies. Placing a refuge in downstream receiving waters would not alter the limit to be enforced at the point of discharge, protecting all possible beneficial uses covered under state and federal water regulations.

The DEIS then goes on to acknowledge (page 4D-27, bottom) that urban runoff from Morrison Creek and its tributaries appears to overflow into the Upper Beach Lake area during wet periods, resulting in elevated levels of metals and organics. Also, (on page 4D-29) the DEIS states that some "urban runoff containing pollutants ... could be discharged from developed areas around Elk Grove, Franklin Field, and Galt."

A-4-108

U.S. Fish and Wildlife Service
October 15, 1991
Page 4

Considering these comments, and that implementation of the ISWP standards may never be achieved for the existing urbanized areas, the Final EIS should provide for areas at the periphery of the SLNWR with specifically-designated uses consistent with treatment of urban runoff to the Maximum Extent Practicable, using Best Management Practices. And the FEIS (and subsequent conveyances of lands and easements) should require coordination of land planning within the SLNWR with the Comprehensive Stormwater Management Program to be developed under the County's five-year NPDES stormwater permit. Mitigation measures 5D.9. and 5D.10. should be modified and other measures identified to address these concerns.

9

We appreciate this opportunity to review and comment upon the DEIS. Please contact Senior Engineer John Coppola regarding water supply comments and Principal Engineer Craig Crouch regarding flood control and water quality comments. Both can be reached at 440-6851.

Sincerely,



Keith DeVore
Chief, Water Resources Division

401.01
3 Years

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C-057111

**Responses to Comments from the Sacramento County Department of Public Works,
Chief of Water Resources Division**

1. Comment noted. The final EIS has been revised to include this information. Revise the second sentence, third paragraph on page 2-1, to read: "The county department of public works, and approximately two dozen other organizations, are responsible for operating water maintenance districts in Sacramento County (DeVore pers. comm.)".
2. Comment noted. The final EIS has been revised to include information on the status of the Folsom South Canal. Add the following sentence to the end of the first paragraph on page 2-2: "Given the existing state of political and environmental sensitivity regarding diversions from the lower American River, it is highly unlikely that the Folsom South Canal would provide a source of water for restored wetlands within the Stone Lakes NWR (DeVore pers. comm.)".

The analyses in the draft EIS and final EIS indicate that water could be supplied by diversions from the tidally influenced, permanent Delta water in the Beach/Stone Lakes basin, lower Cosumnes River, and Snodgrass Slough and other Delta sloughs. Use of groundwater is expected to be a minor component of refuge water management because of the high electrical and maintenance costs of pumping; the analyses in the EIS are based on this assumption.

3. The specific details of water sources and specific estimations of annual water demands for the restoration of wetlands in the NWR would be made by the USFWS during the development of specific plans for each PU.
4. Refer to the response to comment 1 by the Sacramento City Department of Public Works, Division of Flood Control and Sewers.
5. Refer to the response to comment 1 by the Sacramento City Department of Public Works, Division of Flood Control and Sewers.
6. Comment noted. The specific details of a MOU with Sacramento County for joint management of natural areas within the SRCSD Buffer Lands will be determined at a later date if the NWR proceeds to implementation. The USFWS considers the use of mitigation sites and mitigation banks as potentially compatible with NWR management objectives. The Environmental Services and the Endangered Species Divisions of the USFWS have primary responsibility for evaluating and commenting on local lead agencies on impacts on wildlife resources due to urban development projects, including flood control.
7. The final EIS states on page 5D-13 that the USFWS intends to develop specific management plans that are consistent with local, state, and federal flood management objectives. Add the following objectives to those stated on page 3A-30:

"■ maintain consistency with local, state, and federal flood management objectives."

Refer also to the response to comment 3 of the Sacramento City Department of Public Works, Division of Flood Control and Sewers.

8. As stated on page 5D-13 of the final EIS, the USFWS will develop cooperative agreements and MOUs with local, state, and federal agencies that allow the continued operation and maintenance of facilities within refuge boundaries. It is not necessary to exclude these small areas from NWR boundaries because inclusion within the NWR will not affect operation of these facilities. In most cases, the USFWS assumes that these flood control facilities will remain under local control and ownership, as is currently the case. Refer also to the response to comment 3 of the Sacramento City Department of Public Works, Division of Flood Control and Sewers.
9. Comment noted. Mitigation measures 5D.9 and 5D.10 have been revised in the final EIS as recommended to reflect the concerns about urban runoff controls at the periphery of the NWR and coordination of these activities with the NPDES permit program.

A-4-112

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COUNTY OF SACRAMENTO

WATER QUALITY DIVISION

ROBERT F. SHANKS, Chief

COLLECTION SYSTEM, S. WALTON
ENGINEERING SECTION, J. P. GAFFNEY
TREATMENT PLANT, W. H. KIDO

DEPARTMENT OF PUBLIC WORKS

DOUGLAS M. FRALEIGH, Director
F. I. HODGKINS, Deputy Director
TERRY T. TICE, Deputy Director

October 11, 1991
R300.800.1

U.S. Fish & Wildlife Service
Sacramento Realty Field Office, Planning Branch
2233 Watt Avenue, Suite 375
Sacramento, CA 95825-0509

Subject: Draft Environmental Impact Statement for Proposed Stone Lakes National Wildlife Refuge

The Sacramento Regional County Sanitation District owns approximately 3500 acres which includes a wastewater treatment plant located at the northeast extremity of the proposed refuge. The District is in the process of restoring a substantial portion of that property for wildlife habitat values. Provided that an agreement with the Service would include adequate provisions for the District to continue to operate, maintain, and construct needed facilities for its treatment system, the refuge should be compatible with our operations. 1

We are puzzled regarding the proposed boundaries of the various alternatives. In all cases, the boundary splits off a portion of the northeast corner of our property. There is not, to our knowledge, any reason to exclude that portion and include the rest of the property. If the parcel is excluded for a specific reason, we should exclude all parcels which are inappropriate for inclusion. Otherwise, we should include the entire property. 2

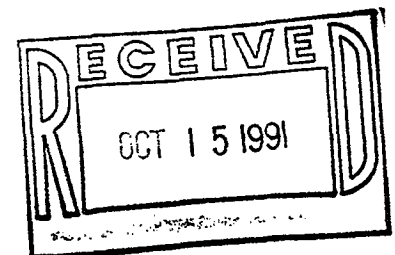
Very truly yours,

Roy L. Nelson
Buffer Lands Manager

RLN:cc

cc: D. M. Fraleigh
R. F. Shanks
W. N. Anderson
Bob Davison, Public Infrastructure

usfish.rln



A-4-113

**Responses to Comments from the Sacramento County Department of Public Works,
Water Quality Division**

1. Comment noted. The USFWS will enter into an MOU with the SRCSD whereby the district would continue operation and maintenance of its facilities adjacent to the wetlands. Refer to the response to comment 3 of the Sacramento City Department of Public Works, Division of Flood Control and Sewers.
2. Comment noted. Under the Mitigated Preferred Alternative, the boundary of PU 2, the buffer lands, has been expanded to include the subject parcel. The cropland and dairy facility on the south and southeast portions of the Buffer Lands have been deleted under the Mitigated Preferred Alternative to be more consistent with stated refuge objectives to preserve compatible agricultural uses wherever possible.



SACRAMENTO REGIONAL TRANSIT DISTRICT

MAILING ADDRESS: P.O. BOX 2110 • SACRAMENTO CA 95812-2110 • 916/321-2800

August 1, 1991

Peter Jerome
Planning Team Leader
U.S. Fish and Wildlife Service
2233 Watt Avenue, Suite 375
Sacramento CA 95825-0509

Dear Mr. Jerome:

Thank you for the opportunity to review the Executive Summary of the Draft Environmental Impact Statement for the proposed Stone Lakes National Wildlife Refuge. Regional Transit (RT) has the following comments on the proposed project.

RT recently completed a Systems Planning Study which identified and evaluated several transit service alternatives. The RT Board of Directors has accepted the Systems Planning Study and adopted a light rail transit corridor concept plan. One of these corridors is located in the south Sacramento area and has two options for a proposed LRT alignment terminating at Elk Grove Boulevard. The first utilizes the Meadowview/Cosumnes Boulevard/Calvine Road/Southern Pacific Railroad (SPRR) right-of-way alignment. The second option utilizes an existing Union Pacific Railroad (UPRR) right-of-way. Both alignment proposals will be the subject of a forthcoming federal Alternatives Analysis/Draft Environmental Impact Statement (AA/DEIS) process which is anticipated to begin in early 1992.

Regional Transit has concerns regarding the impacts of the Stone Lakes National Wildlife Refuge relative to the proposed LRT alignments, as the site is located adjacent to the alignments. RT would like to continue to be informed of the progress of this project. As the District moves into the AA/DEIS for the South Corridor alignments, your agency's involvement in that process would be welcomed. Please contact Debra Jones, Senior Planner at 321-2870 to further discuss the relationship between the South Corridor AA/DEIS and your project.

Sincerely,

Rob Gregg
Planning Manager

U.S. DEPT. OF INTERIOR

AUG 5 1991

c: Debra Jones, Senior Planner, RT

U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA

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Sacramento Regional Transit, a Public Entity, is an Equal Opportunity Employer
Located at 1400 29th Street, Sacramento CA 95816-6406

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Responses to Comments from the Sacramento Regional Transit District

1. Only one of the light-rail transit (LRT) corridor alternatives traverses the proposed NWR acquisition boundary. This alignment is along the Union Pacific Railroad (UPRR) right-of-way through the east half of the Buffer Lands (PU 2). The Buffer Lands would be managed as a part of the NWR under an MOU between the USFWS and SRCSD; the SRCSD would retain ownership and primary management responsibility for the Buffer Lands.

The analysis in the final EIS assumes that refuge establishment would not affect the implementation of state and local agencies' planned and recommended roadway and transportation improvements (Chapter 5K, "Environmental Consequences: Vehicle Access and Transportation Network"), including the proposed LRT alignment.



SAN JOAQUIN COUNTY

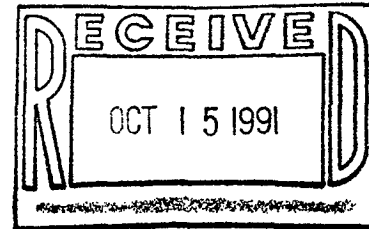
FLOOD CONTROL & WATER CONSERVATION DISTRICT

P. O. BOX 1810

1810 EAST HAZELTON AVENUE
STOCKTON, CALIFORNIA 95201
TELEPHONE (209) 468-3000
FAX NO. (209) 468-2999

HENRY M. HIRATA
DIRECTOR OF PUBLIC WORKS
FLOOD CONTROL ENGINEER

October 14, 1991



Peter Jerome, Refuge Manager
U.S. Fish and Wildlife Service
2233 Watt Avenue, Suite 375
Sacramento, Ca. 95825

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE STONE LAKES
NATIONAL WILDLIFE REFUGE

Dear Mr. Jerome:

We have reviewed the Draft Environmental Impact Statement for the Stone Lakes National Wildlife Refuge Project and have noted the following deficiencies in the document that must be addressed.

I) San Joaquin County is very concerned about the impact this refuge will have on drainage, water supply, water quality and especially flooding in San Joaquin County. More specific information is needed in the E.I.S. to determine and clarify whether portions of northern San Joaquin County will be at a larger risk to flooding as a result of this project.

II) There is much discussion devoted to the Lambert Rd. tidegate structure. On page 4D-6, it is explained that the flapgate structure consists of seven gated low-level conduits and ten gated high-level conduits that are in a state of disrepair. On page 4D-7, it is stated that alterations to the Lambert Road structure could raise water surface elevations south of Lambert Road and the duration of flooding in these areas could be affected. Clarification on the following questions must be provided.

1) Will alterations to the Lambert Road tidegates be part of this project? If it is so, please explain the nature of these alterations.

2) Is the Lambert Road tidegate alteration to be part of the initial construction of the Stone Lakes Refuge project?

3) Will the increase in water surface elevations cause flooding in San Joaquin County?

III) On page 5D-1, it is mentioned that the creation of wetlands could entail regrading uplands, creating drainage channels, or dredging existing channels. Please provide clarification on the following questions?

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1) Where will these new channels be located and will these new channels cause any flooding problems to San Joaquin County?

2) It is noted that some ditch, canal and levee maintenance will be curtailed in order to build the Refuge. Where will this maintenance be curtailed? Will the restricted drainage cause a greater threat of flooding?

IV) On page 5D-2, it is mentioned that dry uplands could be permanently flooded. The locations of these uplands are not identified in the E.I.S.

If any clarification is necessary regarding our comments, you may contact Dennis Corcoran at (209) 468-3060.

Very truly yours,

Henry M. Hirata
Henry M. Hirata
Director of Public Works

HMH:DC:cd
C:/CL/SLNWR.EIS

c: Dennis Corcoran
Junior Engineer

A-4-118

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C-057120

Responses to Comments from the San Joaquin County Flood Control and Water Conservation District

1. The proposed NWR would not result in changes in the operation and maintenance of the Morrison Creek/Beach-Stone Lakes flood control works and levees. Refer to the response to comment 3 by the Sacramento City Department of Public Works, Division of Flood Control and Sewers. The NWR would have a negligible effect on flooding in San Joaquin County. The North Delta Project would have effects on San Joaquin County and the NWR.
2. Alterations to the Lambert Road structure would not be part of the Stone Lakes NWR project. The NWR project does not require alterations of this structure to meet refuge objectives.
3. The NWR project could entail regrading uplands, creating drainage channels, and dredging existing channels. The exact locations and sizes of these channels will be decided when the USFWS acquires land and develops restoration plans for specific parcels.

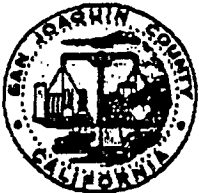
The NWR would have a minor effect on flood control systems and 100-year flood levels, particularly downstream of the Lambert Road structure. This structure acts as a reservoir outflow constriction, backing up flood waters upstream into the Beach/Stone Lakes complex.

When the Beach/Stone Lakes complex is mostly inundated during 100-year flood events, the effects of the channel alterations and regrading associated with the NWR would be minimal. The NWR would not require channel alterations downstream of the Lambert Road structure. San Joaquin County is affected by outflows from the Lambert Road structure to some extent. The NWR would not significantly change flood outflows from this structure.

The intent of the EIS is not to analyze the detailed effects of the proposed refuge but to point out the potential effects of such a refuge. Given the present conceptual level of detail of the proposed NWR, the draft EIS and final EIS adequately address the effects of the refuge on these potential flooding problems.

Although specific details of the NWR are not developed at this time, the USFWS stated in the draft EIS and final EIS (page 5D-13) that the refuge would not affect current operation and maintenance of levees, channels, and outlet works required for flood control. An MOU between the USFWS, other responsible agencies, and adjacent reclamation districts will be developed that will allow the continued operation and maintenance of existing flood control works with sufficient access and right-of-way. Refer also to the response to comment 3 of the Sacramento City Department of Public Works, Division of Flood Control and Sewers.

4. The exact locations of uplands that could be permanently flooded have not been identified. Acreages to be converted to permanent wetlands have been estimated for analysis in the draft EIS and final EIS. The intent of the EIS is not to analyze the detailed effects of the proposed refuge but to point out the potential effects of such a refuge. The exact locations and acreages of sites to be converted would be identified when the USFWS acquires lands and develops specific restoration plans for each parcel. Environmental reviews would be conducted for specific restoration projects to comply with NEPA.



HENRY M. HIRATA
DIRECTOR

COUNTY OF SAN JOAQUIN
DEPARTMENT OF PUBLIC WORKS
P. O. BOX 1810 - 1810 E. HAZELTON AVENUE
STOCKTON, CALIFORNIA 95201
(209) 468-3000

EUGENE DELUCCHI
CHIEF DEPUTY DIRECTOR

THOMAS R. FLINN
DEPUTY DIRECTOR

MANUEL LOPEZ
DEPUTY DIRECTOR

RICHARD C. PAYNE
DEPUTY DIRECTOR

October 15, 1991

F A C S I M I L E
(209) 468-2999 FAX

U.S. DEPT. OF INTERIOR

OCT 15 1991

Pete Jerome, Refuge Manager
U.S. Fish & Wildlife Service
2233 Watt Avenue, Suite 375
Sacramento, CA 95825
(916) 978-4427 FAX

U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA

RE: DEIS FOR THE PROPOSED STONE LAKES NATIONAL WILDLIFE REFUGE

The San Joaquin County Public Works Department has the following comments regarding the above proposed Project:

FLOOD CONTROL DIVISION - concerns are in the attached letter mailed to you on October 14, 1991.

PUBLIC TRANSPORTATION DIVISION - Presently there are plans under study for a passenger rail service to be implemented at a future date through this "Study" area. The potential Stockton-Sacramento intercity rail service on the Southern Pacific line and the potential for intercity service via light rail on the existing Union Pacific line would be greatly impacted by your proposed project.

Therefore, the San Joaquin County would not favor any proposed Project which would impact mass transit potential between San Joaquin & Sacramento Counties.

Thank you for the opportunity to comment on this project. If there are subsequent documents, please forward them to the address above for Department of Public Works review and comment. Should there be questions regarding these comments please call me at (209) 468-3073.

Very truly yours,

Kenneth A. Hill
Kenneth A. Hill
Environmental Coordinator

encl.

Post-It™ brand fax transmittal memo 7871		# of pages > 3
To PETE JEROME	From KEN HILL	
Co. USFWS	Co. SJCC	
Dept.	Phone # (209) 468-3073	
Fax # (916) 978-4427	Fax # (209) 468-2999	

A-4-121

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C-057123

Responses to Comments from the San Joaquin County Department of Public Works, Flood Control Division and Public Transportation Division

1. The analysis in the final EIS assumes that refuge establishment would not affect the implementation of state and local agencies' planned and recommended roadway and transportation improvements (Chapter 5K, "Environmental Consequences: Vehicle Access and Transportation Network"), including the potential intercity rail service. The Southern Pacific Railroad and Union Pacific Railroad rights-of-ways would be outside of the NWR boundaries. USFWS would not seek to acquire the rights-of-way or restrict rail service on the these lines.
2. Comment noted. No response is necessary.



Sloughhouse Resource Conservation District

2001 Vesta Way, Sacramento, CA 95864
(916) 485-9883

U.S. DEPT. OF INTERIOR

Aug ~~SEP~~ 23 1991

**U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA**

U.S. Fish and Wildlife Service
Sacramento Realty Field Office
Planning Branch
2233 Watt Avenue, Suite 375
Sacramento, CA 95825-0509

Attn: Mr. Peter Jerome

Re: Comments, Proposed Stone Lakes Wildlife Refuge DEIS.

Dear Mr. Jerome:

After review of the Draft Environmental Impact Statement (DEIS) concerning the above referenced project the Sloughhouse Resource Conservation District (RCD) must oppose the Preferred Alternative C-1, and all other Alternatives requiring acquisition of private lands.

1

The proposed project as described in the DEIS is very vague. No specific plan is put forth regarding amount and location of seasonal and permanent wetlands. In numerous places in the document it is stated that due to the lack of detail regarding refuge facilities, management proposals, etc., only a general discussion could be presented. This lack of detail is a major concern to farmers and other landowners in the area. The RCD recommends that the Fish and Wildlife Service work with local individuals and groups, to develop a clear and concise proposal, including a detailed management plan with full public input and environmental review.

2

The Preferred Alternative at completion would result in the conversion of approximately 10,000 acres of agriculture land, including 2,800 acres of Prime Farmland, resulting in the loss of approximately \$2.4 million annually in agriculture production. Direct farm commodity reduction of \$2.4 million annually equates to a loss of \$7.2 million annually to the local economy.

3

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CONSERVATION · DEVELOPMENT · SELF-GOVERNMENT

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A group of local farmers is working to establish the North Delta Conservancy (NDC). Another potential project alternative, referred to as Alternative A-1, would be for the Fish and Wildlife Service to support establishment of the Conservancy and work closely with the Conservancy for implementation of their proposal.

4

Alternative A-1 suggest the formation of a Wildlife Refuge on existing Public Lands north of Hood-Franklin Road. Lands south of Hood-Franklin Road would be placed in the NDC, and with deed restrictions, would be used only for agriculture purposes and wildlife habitat. This Alternative could be in place in considerably less time than the 15 years proposed for acquisition by the USF&WS. Also, Alternative A-1 would not require the expenditure of \$40 million for acquisition, nor create a \$7.2 million annual loss to the local economy due to lost agriculture production.

5

The Sloughhouse Resource Conservation District opposes the Preferred Alternative, C-1 and supports the proposed Alternative, A-1.

William M. Mosher

William M. Mosher
Chairman, Sloughhouse
Resource Conservation District

cc: The Honorable John Seymour
U. S. Senate.
The Honorable Vic Fazio
U. S. House of Representatives.
The Honorable Robert Matsui
U. S. House of Representatives.
The Honorable David Knowles
California Assembly.
Grantland Johnson, County Supervisor, District 1.
Illa Collin, County Supervisor, District 2.
Sandra Smoley, County Supervisor, District 3.
Jim Strong, County Supervisor, District 4.
C. Tobias Johnson, County Supervisor, District 5.

A-4-124

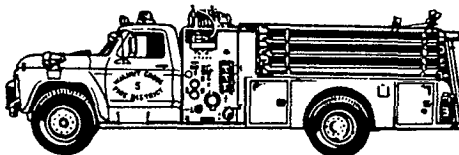
Responses to Comments from the Sloughhouse Resource Conservation District

1. The Sloughhouse RCD's opposition to the all NWR alternatives requiring acquisition of private lands is noted.
2. Refer to the response to the DFA's comment 2.
3. Refer to the response to the Florin RCD's comment 3.
4. Refer to the response to the Florin RCD's comment 4.
5. The Sloughhouse RCD's support of a refuge alternative (A-1) that includes only existing public lands north of Hood-Franklin Road and inclusion of lands south of Hood-Franklin Road in the North Delta Conservancy is noted.

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C-057128



WALNUT GROVE FIRE DISTRICT

P. O. BOX 41 WALNUT GROVE, CALIFORNIA 95690

U.S. DEPT. OF INTERIOR

August 27, 1991

AUG 29 1991

Peter Jerome
U.S. Fish & Wildlife Service
2233 Watt Ave., Suite 315
Sacramento, CA 95825

U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA

RE: Proposed Stone Lake Wildlife Refuge - EIS deficiencies

Dear Mr. Jerome:

In the past few weeks, the Directors of the Walnut Grove Fire District has received information that a substantial part of our public service area is to be included in the Stone Lake Proposal favored by the U.S. Fish & Wildlife Service. The Walnut Grove Fire District is a volunteer fire response and public safety district composed entirely of volunteers whose jurisdiction extends from both sides of the Sacramento River approximately half way North to Courtland and extending beyond the Interstate 5 to Franklin Boulevard. Our taxing base includes many ranches that are proposed for inclusion in the C, C-1, D and E proposals. A review of the Environmental Impact Statement produced by Jones & Stokes reveals the following deficiencies.

1. Decreased tax base: The EIS fails to address the decreased tax base which would result from Federal Government acquisition of these properties. The supplemental EIS should address the proper method of financing to the Fire District for property lost due to the acquisition.

1

2. Increased public use requires increased fire and medical emergency services: A review of existing volunteer fire districts throughout California in whose jurisdiction there has been public acquisition for parks or wildlife refuges, (i.e. Big Basin State Park), reveals an increased demand for public safety services because of increased public use. It has been the experience of the volunteer fire districts that typically the public agencies do not budget adequately for the increased demand for services created by the influx of members of the public to these previously private parcels of land. The EIS should address the overall expected costs of these services, for Walnut Grove, Courtland, Elk Grove and the City of Sacramento fire protecting agencies. It is expected that said costs will have a significant impact and should be addressed.

2

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3. Increased threat of wildfires: The District has noticed that the "core" project (A-1), which is presently under the jurisdiction of public agencies, and located North of Hood-Franklin Road appears to be a fire hazard. Typically, that ground has not been grazed or otherwise kept in a state sufficient to minimize the range of grass fires or wildfires. In the areas of C, C-1, D & F, as a rule the private land owners tend to comply with Sacramento County rules and regulations and Fire District regulations regarding the maintenance of brush control. The EIS does not address, at all, what steps the U.S. Fish & Wildlife Service would take to minimize said threat. The District is greatly concerned that nowhere in the planning process of any of the proposals is this threat so common to Sacramento County taken into account. The supplemental EIS must address these issues and provide alternatives and mitigation measures.

We must require that these issues be addressed, especially the costs of these issues in a supplemental EIS process.

We are greatly concerned that U.S. Fish & Wildlife Service has failed to address these issues.

Sincerely,


Jan Weiss

cc: Jones & Stokes
Sacramento County Board of Supervisors
Congressman Vic Fazio
Senator John Seymore

A-4-128

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C-057130

Responses to Comments from the Walnut Grove Fire District

1. Refer to the response to comment 1 of the Courtland Fire District.
2. Refer to the response to comment 2 of the Courtland Fire District.
3. Refer to the response to comment 3 of the Courtland Fire District.

Chapter 5. Responses to Specific Comments on the Draft EIS from Organizations and Individuals

This chapter summarizes and responds to specific comments from individuals and organizations that were included in comment letters and testimonies at the public hearings and were not addressed in Chapter 3, "Responses to Major Issues Raised in Public Comments on the Draft EIS," or Chapter 4, "Responses to Agencies' Written Comments on the Draft EIS". Only substantive specific comments that address the adequacy or accuracy of the environmental review process or information presented in the draft EIS are addressed. Comments that question the merits of the Stone Lakes NWR project are not included.

Because many of the comments made by organizations and individuals were similar, representative comments have been summarized and paraphrased for response. The comments and responses are organized by resource in the same order as the discussion in the draft EIS and are grouped under topic headings representing the general issue areas.

LIST OF ORGANIZATIONS

Comments on the draft EIS were submitted by 55 organizations. A list of commenting organizations follows.

Animal Protection Institute of America
Bel Marin Keys Yacht Club
Ben Ali Shrine Yacht Club
Benicia Yacht Club
Bridge Marina Yacht Club
California Association of Winegrape Growers
California Delta Chambers
California Farm Bureau Federation
California Native Plant Society
California Parks and Conservation Association
California State Park Rangers Association
California Sugar Beet Growers
California Trout
Central Valley Habitat Joint Venture
Classic Yacht Association
Defenders of Wildlife

Ducks Unlimited
Environmental Defense Fund
Friends of Stone Lakes
International Order of the Blue Gavel
Laguna Creek Community Association
Lake Natoma Heights Homeowner Association
Land Utilization Alliance
Loch Lomond Yacht Club
Mokelumne River Alliance
Mountain Lion Foundation
Neighbors for Stone Lakes Refuge
Northern California Marine Association
Pacific Interclub Yacht Association
Pheasants Forever
Recreational Boaters of California
River City Paddlers
Sacramento Audubon Society
Sacramento County Alliance of Neighborhoods
Sacramento Metropolitan Chamber of Commerce
Sacramento Open Space
San Francisco Yacht Club
San Rafael Yacht Club
Sequoia Yacht Club
Sierra Club (Delta-Sierra Group, Mother Lode Chapter)
Sierra Club (Public Lands Committee)
Sierra Club (San Francisco)
South Sacramento Preservation Council
Spindrift Yacht Club
The Ark Trust
The Fund For Animals
The League of Women Voters of Sacramento
The Nature Conservancy
The Planning and Conservation League
The Wilderness Society
Tower Park Yacht Club
Urban Creeks Council
Walnut Grove Area Chamber of Commerce
Walnut Grove Yacht Club
Yolo Audubon Society

LIST OF INDIVIDUALS

Almost 6,000 individuals commented on the draft EIS. A log of all commenters on the draft EIS is available for public review in the USFWS Stone Lakes project office in Sacramento.

ENVIRONMENTAL REVIEW PROCESS

Evaluation of Cumulative Impacts

Comment: The draft EIS is deficient in its failure to address the following cumulative impacts of the project: increased power boating use on the Sacramento River due to boating restrictions on refuge waterways and cumulative loss of agricultural lands in California.

Response: Chapter 6, "Cumulative Impacts", in the final EIS includes an assessment of the cumulative impacts of the project on agricultural resources.

The final EIS also clarifies that the USFWS would not seek to regulate existing boating uses on navigable waterways in the Stone Lakes study area. The final EIS concludes that under any of the NWR alternatives, impacts on existing boating activities would be less than significant. The proposed project would not contribute to cumulative impacts on boating activities in the Delta.

Mitigation Measures

Comment: Identify meaningful mitigation measures and an action plan to implement them.

Comment: Are the mitigation measures included in the draft EIS only suggestions to the USFWS or must they be acted on?

Response: NEPA CEQ regulations require that an EIS include discussions of appropriate mitigation measures to mitigate adverse environmental impacts (40 CFR 1502.14[f] and 1502.16[h]). The mitigation measures must cover the range of impacts of the proposal. All relevant, reasonable mitigation measures that could improve the project are to be identified, even if they are outside the jurisdiction of the lead agency. The final EIS for the Stone Lakes NWR meets the CEQ requirements.

The mitigation measures included in the draft and final EIS are recommendations. Under CEQ regulations, the lead agency is required to prepare a concise public record of decision (ROD) at the time of its decision (40 CFR 1505.2). The ROD shall state what the

decision is, identify all alternatives considered by the agency in reaching its decision, and specify the alternative or alternatives considered to be environmentally preferable. The ROD must also state whether all practicable means, or mitigation measures, to avoid or minimize environmental harm from the alternative selected have been adopted and, if not, why they were not. A monitoring and enforcement program shall also be adopted and summarized where applicable for any mitigation. Adopted mitigation measures and monitoring and enforcement provisions will be discussed in the USFWS's ROD on the Stone Lakes NWR project.

Certification of an EIS

Comment: Who or which agency certifies that a draft EIS is complete?

Response: NEPA places the responsibility to prepare EISs on federal agencies. The USFWS, as the agency with the major responsibility for action on the proposed Stone Lakes NWR project, is responsible for ensuring that the scope and content of the EIS is adequate. Refer to the response to the previous comment for a discussion of the ROD requirements.

EXECUTIVE SUMMARY

Comment: The executive summary is not reflective of the draft EIS.

Comment: The executive summary should clarify the distinction between the buffer zones recommended as mitigation to avoid adverse effects on adjacent land uses and the SRCSD Buffer Lands.

Comment: The executive summary omits some much needed explanation and description, especially in the section describing the alternatives. Based on the descriptions, the average reader would have difficulties understanding the differences between the various alternatives.

Comment: The executive summary should emphasize the environmental education opportunities of the NWR.

Response: The purpose of the executive summary was to present an overview of the Stone Lakes NWR project draft EIS, including the project description, scope of the EIS, alternatives, Preferred Alternative C1, and impacts. The information presented in the executive summary is summarized from the draft EIS. Public comments on the executive summary have been considered in preparation of the executive summary for the final EIS.

PROJECT DESCRIPTION

Conservation Easements

Comment: These easements are a cost-effective and successful method of protecting habitat, while allowing private ownership and compatible multiple uses to continue.

Response: Comment noted. Conservation easements or voluntary cooperative agreements between the USFWS and private landowners would be the primary management objective for lands within the boundaries of the CWMA shown in the Mitigated Preferred Alternative. PUs included are PUs 7, 9, 10A, 13, 15, and 16 (partial). Conservation easements with the USFWS would also be possible within the core area refuge if private landowners are willing to sell an easement but are not interested in selling fee title or giving up control of their land completely.

Conservation easements may not result in any change in existing land use or management but would preclude future conversion to nonagricultural or nonwildlife uses. Some easements may restrict the options for agricultural management to benefit wildlife. Purchase of these easements would include just compensation for the burden of any negotiated restrictions.

Planning Units

Comment: It is difficult to assess the USFWS's position on conversion within a PU. Acreages and percentages are identified, but they are not specific to parcels within the PU, making it difficult to follow exactly how and where impacts would occur and exactly how mitigations would be implemented to arrive at percentages and acreages within a PU. There must have been more detailed study done that identified specific parcels of land for conversion; otherwise the percentages would be meaningless. If possible, these more comprehensive data should be included in the final EIS.

Response: The USFWS does not have a site-specific plan for land acquisition, with particular parcels and ownership identified, or a site-specific plan for the conversion of cropland and the creation of specific habitat types. Specific plans will be identified and detailed only if the USFWS decides to proceed with the NWR project in the ROD. Site-specific plans for the Stone Lakes NWR will then undergo another phase of environmental review under NEPA regulations.

General habitat restoration goals and objectives were developed as described in Chapter 3B, "Habitat Restoration Feasibility", of the final EIS, based in part on qualitative examination of existing plant communities, topography, water availability, flooding frequency, adjacent land uses, wildlife needs, and habitat linkage corridors within each PU. Specific land ownership was not a consideration when the USFWS established acreages or percentages of restoration objectives. Adopted mitigation measures would be applied to

each situation in which the site-specific impact triggers the identified mitigation needed to reduce each impact to a less-than-significant level.

Restoration

Comment: What will be the real cost to the taxpayers? This includes delayed land purchase, restoration cost, and overhead costs with inflation and salary increases.

Response: Detailed restoration cost estimates for the NWR will be prepared by the USFWS if the Stone Lakes NWR project is approved; cost estimates will be prepared as a part of the planning process for specific parcels and projects. Acquisition cost estimates provided in Table S-6 and Chapter 3B of the final EIS are reasonably conservative estimates based on previous experience and professional knowledge of the project area and on the general NWR land acquisition methods and management objectives listed under each alternative.

Comment: The \$10-per-acre incentive payment to farmers to defer tillage of fields until after fall or winter is too low. A \$50-\$100 payment would provide more incentive to help offset spring ground work.

Response: Comment noted. Incentive payments are just what the name implies, incentives to encourage landowners to provide more habitat on private land for wildlife. Incentive payments do not pretend to compensate landowners fully for any additional land management burden. Landowners sometimes augment government-sponsored incentive payment programs with private hunting lease fees charged for use of their land. Larger one-time-only cash payments are possible as part of a negotiated conservation easement with the USFWS.

Comment: Without a detailed management and land acquisition plan, the cost and technology assumptions for habitat creation are invalid. A restoration feasibility analysis with the above-mentioned detail is necessary.

Response: Assumptions about the NWR project features and consequences were made to perform a generalized, qualitative analysis of the feasibility of such a project. These assumptions are useful and valid for the level of detail required to determine whether to proceed with acquisition and protection actions for an NWR. The USFWS would prepare a detailed restoration feasibility and cost analysis at a later stage in the planning process, and would circulate it for public review to comply with the requirements of NEPA.

Comment: Most efforts to restore California habitats are less than 10 years old. Technical feasibility is in question because the science is so new and the success rate for creation of self-sustaining habitats through restoration is undetermined.

Response: Technical feasibility is not in question for the science of creating wetland and riparian habitats. The first NWR waterfowl habitats were created over 40 years ago in the Central Valley of California. The science of wetland and riparian habitat creation has developed a rich legacy of practical and scientific experience and research throughout the western states, including numerous conferences and published reports.

The science of vernal pool, native perennial grassland, and endangered species habitats is generally regarded as more experimental and is therefore less conclusive about technical feasibility. These habitats, however, only comprise a small portion of proposed NWR lands under any of the alternatives.

Comment: One of the NWR project's goals is restoration to 1970 levels. No change has occurred in the area since 1970. Where are the historic sites of wetland and riparian habitat? What are the wildlife values?

Response: The stated goal of "restoration to 1970 levels" refers to the goals of the multinational NAWMP and the CVHJV Plan, as described in published documents of these widely distributed waterfowl recovery programs. Water bird population censuses have recorded a steady decline every year since 1970, exacerbated by the drought cycle in the western states. CVHJV hopes to reverse this decline.

Condemnation

Comment: The draft EIS has failed to address the impacts of condemnation on the local landowners and its effect on their ability to borrow money and sell at the highest amount and best use.

Comment: Why was the condemnation process left out of the draft EIS when in fact it may be used in the establishment of the refuge?

Response: A description of the USFWS power of eminent domain and condemnation policy was included on pages 3A-17 and 3A-18 of the draft EIS and in Chapter 3A of the final EIS. The effects of condemnation are addressed in the draft EIS and final EIS in Chapter 5L, "Environmental Consequences: Economic and Fiscal Resources".

In response to concerns about condemnation, the USFWS incorporated a policy in the description of the Mitigated Preferred Alternative presented in the final EIS (page 3A-50) that would limit the use of condemnation to acquire land for the NWR.

Comment: Acquisitions should be in fee-title and only from willing sellers. Easements require constant policing.

Comment: Will the condemnation process occur when endangered species are found on lands adjacent to the refuge or within the refuge acquisition boundary.

Response: The federal Endangered Species Act, coupled with the federal powers of condemnation, provides for a land condemnation option to protect populations of endangered species determined to be eminently threatened with extirpation if condemnation is not invoked. This circumstance, however, is considered highly unlikely in the NWR study area. For more discussion of the act, see Chapters 4E and 5E of the final EIS.

Comment: The USFWS should take the initiative in informing lending institutions that it will not condemn or take other action that would reduce the value of property in the refuge.

Response: Comment noted. The USFWS has agreed to such a policy as part of the Mitigated Preferred Alternative.

Comment: USFWS policy is to acquire land through condemnation only to prevent uses that would cause irreparable damage to the resources for which the refuge was established. Please define irreparable damage and give an example. Does this policy apply to adjacent landowners?

Response: In response to these concerns, the USFWS incorporated a policy on condemnation in the Mitigated Preferred Alternative. The USFWS has stated that it does not intend to allow condemnation of farmland as part of the Stone Lakes NWR. Under the Mitigated Preferred Alternative, the USFWS would not use the power of eminent domain to acquire lands in fee-title if existing or proposed agricultural uses are consistent with the current Sacramento County General Plan (1982) and the proposed update. This policy would not apply to incompatible nonagricultural land uses that may be permitted in agricultural land use moves in the general plan and county zoning ordinances. Should land use changes be proposed or amendments to the general plan occur that support nonagricultural uses, the USFWS would reevaluate this position with respect to condemnation to determine if any action is necessary.

EXISTING PLANS AND POLICIES

Refuges 2003

Comment: With the probable restructuring of refuge management regulations by 1998 (Refuges 2003), how will agriculture be affected by their enforcement? Additional discussion of Refuges 2003 is necessary in the EIS.

Comment: The draft EIS of Refuges 2003 is not due to be released until March 1992; thus, the management proposals that would control the Stone Lakes NWR have yet to be identified, let alone approved. If Refuges 2003 is a meaningful study, then none of the management options or mitigation measures being suggested for Stone Lakes are final, and all of them may be revised. The choice of these options could fundamentally alter the entire stated purpose for acquiring the Stone Lakes Refuge.

Response: The commenter is correct that the USFWS is in the process of preparing a programmatic EIS on the management of the entire NWR system through 2003, the 100th anniversary of the NWR system. The draft Refuges 2003 EIS is scheduled for release to the public in June 1992. No practical method is available to predict the outcome of the Refuges 2003 process; assumptions regarding changes in management direction would be speculative.

At this stage of the planning and environmental review process, the proposed Stone Lakes project has not been defined at a site-specific level. The analyses in this final EIS for the proposed Stone Lakes NWR project are based on existing USFWS legislative mandates, agency regulations, and policies, as well as the defined goals for the project. Conflicts or inconsistencies with the ultimate decisions on the Refuges 2003 EIS are not anticipated. Future revisions would likely not alter the stated objectives for the Stone Lakes NWR or appreciably alter refuge management and mitigation measures described in the final EIS.

North American Waterfowl Management Plan and Central Valley Habitat Joint Venture Plan

Comment: The CVHJV plan's objective is to preserve or enhance 80,000 acres of wetlands in the Central Valley. Over one-fourth of this acreage objective would be met by the creation of the Stone Lakes NWR under Alternative C1, and nearly all would be met if Alternative E were adopted.

Response: The NWR alternatives would satisfy only a portion of the objectives of the NAWMP and CVHJV plan to protect or restore wetlands that support species of waterfowl. Alternative C1 would create up to 3,100 acres of new permanent and seasonal wetlands (see Table 3B-1), while the Mitigated Preferred Alternative would create 3,749 acres of new wetlands. Either amount represents less than 5% of the objective of the CVHJV plan to create 120,000 acres of new wetlands in the Central Valley.

The CVHJV plan also calls for protecting 80,000 acres of existing wetlands through acquisition or easements in perpetuity. Alternative C1 would protect as much as 2,385 acres of existing wetlands, and the Mitigated Preferred Alternative would protect as much as 2,083 acres. Either amount would represent less than 3% of the CVHJV plan objective for the Central Valley.

Comment: The CVHJV plan calls for protecting and restoring approximately 20,000 acres of wetlands in the Delta.

Response: Comment noted. The amount of acres of wetland protected or restored under Alternative C1 or the Mitigated Preferred Alternative would represent approximately one-fourth of the CVHJV plan objective for wetland restoration in the Delta region.

Sacramento County General Plan

Comment: The general plan is in the draft phase and will not be released until February 1992; final adoption is scheduled for November 1993. The open space land use designations will be challenged and changed if any down zoning is perceived. How can you use this proposed draft plan as part of your decision-making process?

Response: The analysis of land use impacts in the EIS is based on the existing management direction provided by the adopted 1982 Sacramento County general plan. The analysis does not rely on any assumptions based on the draft general plan update. Significant changes to the draft general plan update could be made before final adoption; therefore, an analysis based on the draft update would be speculative. The discussion of the Sacramento County general plan update in Chapter 4H, "Affected Environment: Land Use and Aesthetics", is included for informational purposes. Please refer to the discussion of the urbanization issue presented in Chapter 3, "Responses to Major Issues Raised in Public Comments on the Draft EIS", of this document for further information.

Comment: The proposed refuge would be in conformance with the recommendations of the Sacramento County general plan.

Response: Comment noted. No response is necessary.

RELATIONSHIPS TO OTHER PROJECTS AND PROGRAMS

Reports on the National Wildlife Refuge System

Two reports mentioned by commenters are National Wildlife Refuges - Continuing Problems with Incompatible Uses Call for Bold Action and Report to the Director - Secondary Uses Occurring on National Wildlife Refuges.

Comment: These reports should be entered as part of the draft EIS in regard to the uses and problems encountered on the refuge system today.

Response: In a 1989 Government Accounting Office report, the USFWS was criticized for allowing detrimental uses to occur on NWRs. In response to the concerns raised in this initial report, the USFWS formed a NWR Compatibility Task Group to review all secondary uses that occur within the 91-million-acre refuge system. Its review included a comprehensive survey of 185 refuge managers. The results of the interviews were

summarized in a USFWS report, Report to the Director - Secondary Uses Occurring on National Wildlife Refuges. The Task Group also presented a number of suggestions for resolving future secondary land use conflicts, including seeking greater landowner cooperation through easements, lease agreements, and mutual education. The USFWS informational report was intended to heighten the awareness of refuge managers and USFWS decision makers and does not set new NWR policy or regulate federal refuges. Information gathered from these and other studies will assist the USFWS in improving the federal Refuge Manual over the next decade, as planned.

The report found that of over 6,300 uses reported on NWRs, only 2% were considered by managers to be "incompatible". Over half of the incompatible uses identified on NWR lands have already been resolved or will be as lease contracts expire. Of 836 uses described as potentially "harmful", 74% are not within the regulatory jurisdiction of the USFWS.

Mining, off-road vehicle and airboat use, waterskiing, and military air exercises were uses most often considered harmful to the primary use of wildlife management and protection on most NWRs surveyed. None of these most quoted potentially harmful uses represent an existing or proposed land use within the boundaries of the Mitigated Preferred Alternative for the Stone Lakes NWR.

Comment: The Stone Lakes NWR, as proposed in the draft EIS, is similar to areas described in the Government Accounting Office's Report to the Director - Secondary Uses Occurring on National Wildlife Refuges. The recreational use of the area is so well entrenched and historic that if this area were already a refuge, the recommendation would be to close it to concentrate limited resources on refuges where such incompatible uses do not occur.

Comment: The proposed refuge is near a major metropolitan area with many diversified compatible and noncompatible uses. Are there any other refuges as this one? The EIS needs to address this more thoroughly.

Response: Comments noted. See also the response to comment above.

One of the stated goals of the Stone Lakes NWR is to "provide for environmental education, interpretation, and fish- and wildlife-oriented recreation in an urban setting accessible to large populations". Most NWRs are located in remote rural and wilderness settings with limited accessibility to the general public. An exception in California is the San Francisco Bay NWR where visitors average over 280,000 per year, primarily Bay Area residents. NWRs situated near large urban populations provide vitally needed environmental education and greater opportunity for urban dwellers to experience unaltered natural landscapes; the USFWS acknowledges this in the urban refuge policy. The NWR will expand, not detract from, existing levels of recreational use in the NWR study area.

The USFWS recognizes that a NWR close to Sacramento and other high-density communities creates management challenges unique to the NWR system. Potential management conflicts with urban land uses, such as mosquito production or trespassing, have been identified during the scoping and public comment period for the draft EIS. However, the preponderance of issues raised by the public have centered on potential conflicts with rural and agricultural land uses more typical of other NWRs throughout the western United States. The Mitigated Preferred Alternative described in the final EIS includes mitigation measures designed to avoid or minimize the major concerns raised during the public comment period.

Navigable Waterways

Comment: Define navigable waterway. Navigable water is any piece of water you can dump a 12-foot boat in.

Response: The Corps regulations for the U.S. Department of the Army's permitting program define "navigable waters of the United States" as those waters of the United States that are subject to the ebb and flow of the tide shoreward to the mean high water mark and/or that are presently used, have been used, or may be susceptible for use to transport interstate or foreign commerce. These are waters that are navigable in the traditional sense in that permits are required for certain activities pursuant to Section 10 of the Rivers and Harbors Act.

State Lands Commission

Comment: On page 2-3 of Chapter 2, the draft EIS indicates that the SLC analyzes the proposed uses of a project affecting tidal and nontidal waterways to determine whether the proposed uses will be consistent with the public trust doctrine and what the proper balance of those uses should be. The SLC should do this analysis and the findings should be included in the final EIS.

Response: The SLC states in its letter of comment on the draft EIS that the goals of the Stone Lakes project, as presented in the draft EIS, are consistent with the public trust needs and resources in the planning area (Griggs pers. comm.). The letter also notes that the SLC has, in the past, cooperated with the USFWS by entering into long-term leases for inclusion of the state's public trust lands in NWRs (Griggs pers. comm.). This information is included in the final EIS.

The SLC will make a final determination of the state's ownership interests, including a survey and title search, at the USFWS's request when specific parcels of land have been identified for acquisition. If the SLC determines that the state owns water bodies or retains a public trust interest in parcels identified for acquisition, the USFWS could apply for a long-term lease to include the state's public trust lands in the NWR. (Walker pers. comm.)

Coast Guard

Comment: The waters that would be affected by the project's proposed ban on motorized boating are navigable waters of the United States. The U.S. Coast Guard has primary jurisdiction over these waterways for navigation and the Corps has jurisdiction for all other matters falling within Section 10 of the River and Harbors Act. Prohibiting motorized navigation on these waterways would require an EIS. The U.S. Coast Guard would be the lead agency or would share lead agency responsibilities with the Corps. The USFWS is not qualified to be the lead agency for such an undertaking.

Response: The proposed Stone Lakes NWR project does not involve a proposed ban on motorized boating on navigable waters of the United States. This is clarified in the discussion of major recreation issues in Chapter 3 of this appendix and in Chapters 4I and 5I of the final EIS.

The commenter is correct that the U.S. Coast Guard and Corps share jurisdictional responsibilities for navigable waterways. However, prohibiting or restricting motorized boating on the waterways in or bounding the Stone Lakes study area would probably not require a Section 10 permit and would not be subject to NEPA requirements. The U.S. Coast Guard would defer to local jurisdictions such as the county to develop and implement ordinances to regulate these types of uses. (Till pers. comm.)

FEDERAL CONTROL VERSUS LOCAL CONTROL

Comment: Stone Lakes is not simply a local issue, it is a state and national concern and transcends local opposition.

Response: Comment noted. No response is necessary.

Comment: It is the function of the USFWS to develop and protect natural areas. The establishment of the refuge is a federal project. The federal government does not represent Sacramento County or the State of California, but it does represent the entire country of 260 million people, all of whom have various interests.

Response: Comment noted. No response is necessary.

Comment: Once this piece of the county is in the hands of the federal government, it is gone from local control forever, and there will be no say in its management. The area should not be developed, but any number of local measures could do a much better job of protecting the area from developers than the federal government.

Response: Comment noted. No response is necessary.

Comment: State government has been ineffective when it comes to enforcing its own laws and preventing the destruction of wetlands, and Sacramento County government has been totally indifferent to the problem.

Response: Comment noted. No response is necessary.

MANAGEMENT AND LAND PROTECTION PLANS

Refuge Management Plan

Comment: The draft EIS does not propose a full management plan for administration of the NWR. A detailed management plan will be essential for the orderly functioning of an area with so many diverse activities. A plan that includes the number of personnel, costs, responsibilities, and authority needs to be prepared in detail.

Comment: No specific plan is put forth in the draft EIS regarding amount and location of seasonal and permanent wetlands. The lack of detail concerning refuge facilities, management proposals, and other issues is a major concern to farmers and other landowners in the area. The USFWS should work with local groups and individuals to develop a clear and concise proposal, including a detailed management plan with full public input and environmental review. A management plan is essential to the orderly functioning of an area with so many diverse activities.

Response: The public comments on the draft EIS revealed widespread confusion about the nature of the proposed project at this stage in the NEPA process. This EIS evaluates the potential impacts and benefits of a NWR acquisition plan having a particular boundary and within which general USFWS goals and objectives are likely to be implemented. A detailed NWR site plan and comprehensive management decisions will be prepared for further public review if and when the USFWS decides whether a Stone Lakes NWR alternative, if any, is feasible and appropriate under NEPA.

The EIS makes conservative assumptions about the outcome of probable NWR implementation. For example, although the goals by PU for conversion of farmland to wetlands are not site-specific, the acreage used in the EIS analysis is considered a conservatively high estimate of what may actually be converted. This ensures that impacts on agriculture are not underestimated at this stage in the decision-making process.

Mitigation measures adopted as part of the final EIS ROD will ensure that the possible future preparation of a detailed NWR site plan will be constrained by policies that avoid or minimize future site-specific impacts. The USFWS will communicate and cooperate with local landowners and local agencies during the preparation of a detailed NWR design and management plan.

Comment: Throughout the EIS is a definite bias to managing the proposed area for certain species of birds.

Response: A primary objective of the federal refuge system and the Stone Lakes NWR is to "perpetuate the migratory bird resource". Most of California's threatened and endangered species of birds, plants, and mammals are dependent on wetland or riparian habitats to survive. These habitats are the most threatened throughout the Central Valley. Therefore, a major restoration goal of the NWR is to create or protect several thousand acres of wetland or riparian ecosystems. The public will have ample opportunity to observe and in some cases to hunt birds attracted to the refuge.

Large mammals such as deer or bear are not common or likely to occur in large numbers in the NWR study area. Delta fish populations found within the NWR study area require comparatively less management than migratory birds, other than protection from over fishing.

Comment: Vineyards and orchards would not be acquired for restoration sites unless abandoned or unproductive. But some will be because of location between restoration sites?

Response: The USFWS has stated unequivocally that NWR land acquisition and site planning will include adequate buffers adjacent to private farmland, including vineyards and orchards, to prevent land use conflicts. Vineyards can therefore coexist and continue to operate within the overall boundaries of the NWR management area. The USFWS also will not attempt to condemn vineyards or orchards located near restoration sites.

The boundary of the Mitigated Preferred Alternative core area excludes all but a small fraction of lands in the NWR study area where vineyards and orchards are present or planned. Therefore, the potential site planning conflict is considered minor or unlikely. Furthermore, the land purchase cost of viable vineyards or orchards for NWR purposes will generally be prohibitive.

Comment: Agricultural enhancement has to remain under the control of landowners.

Response: The USFWS agrees that easements and cooperative agreements with private landowners should allow most land uses and land access to remain under landowner control. The primary purpose of the agricultural enhancement program is to provide an incentive for private landowners to voluntarily modify farm management or protect existing natural areas to benefit wildlife. USFWS would negotiate with landowners or other federal and state agencies (e.g., SCS, DFG) to determine the rights granted to each party under the terms of the easement grant, cooperative agreement, or MOU and financial compensation for the burden of modifying land use or future land conversion to accommodate the needs of wildlife, especially migratory birds.

Comment: There exists a middle area of cooperation between the farmers and the refuge. For example:

- planting in spring rather than in fall to allow the lands to be used as wetlands in winter;
- use parts of a ranch or farm for wetlands without giving up ownership of lands; and
- flood only unproductive lands for wildlife use, rather than all lands.

Response: Comment noted. All the above suggestions have and will be employed by the USFWS as part of agricultural enhancement programs for wildlife throughout the Central Valley.

Comment: How would a refuge operate with a scattering of parcels in USFWS hands and the rest privately owned and farmed? How will these islands be managed and what will become of the profitability of these isolated farming operations?

Response: Under the Mitigated Preferred Alternative, the lands east of I-5 and south of Lambert Road would remain primarily in active agricultural management. Lands north of Hood-Franklin Road are already owned by public agencies or managed for wildlife refuge purposes. Fee title acquisition by the USFWS would occur primarily in PU 10A surrounding South Stone Lake, except for existing vineyards north of the lake and bordering Hood-Franklin Road. These vineyards and other residential compounds are expected to remain in private ownership.

Many NWRs throughout the United States include numerous private inholdings surrounded by managed refuge lands, and vice versa. Refuge managers report few conflicts with farming neighbors, and the USFWS has a long-standing good-neighbor policy of working cooperatively with adjacent landowners throughout the refuge system.

Fiscal and economic impacts on agriculture were adequately addressed in the draft EIS. Additional information provided during the public comment period has been incorporated into the analysis of agricultural resources contained in the final EIS.

Comment: Is the USFWS willing to give up the right of eminent domain if a landowner is unwilling to sell, or will the USFWS condemn the land?

Response: Under the Mitigated Preferred Alternative, the USFWS would not condemn lands used for agricultural purposes within the NWR boundary, nor would the USFWS actively seek fee title acquisition within the CWMA. See Chapter 3A of the final EIS for further discussion of this policy.

Comment: Management practices of the land are the key to all wildlife values, and if proper economic incentives are provided to farmers, management practices will change to provide the necessary habitat values for a variety of wildlife. Wetlands and wildlife habitat can have economic value for landowners if society wants to pay the price to preserve the land. Programs can be developed with innovative ideas, and opportunities are unlimited if society and government want to work with landowners and farmers in joint ventures or incentive programs for preservation of all resources.

Response: Comment noted. All the above suggestions have and will be employed by the USFWS as part of agricultural enhancement programs for wildlife throughout the Central Valley and within the CWMA under the Mitigated Preferred Alternative.

Comment: A definition of the USFWS "good neighbor" policy is necessary in the draft EIS. The USFWS must be willing to do whatever it takes to assure its potential neighbors that they can continue to operate without any direct or indirect involuntary restrictions caused by the proposed refuge's operations. Once that is accomplished, those that work and live in and around the proposed refuge will be sure that they won't be restricted to the point of not being able to exist either in or next to the proposed refuge.

Response: Comment noted. Peaceful coexistence and a cooperative working relationship with adjacent landowners are the practiced intent of NWR refuge managers throughout the system.

Comment: Will conflicting uses be permitted in the Stone Lakes NWR with legal mandates?

Response: Permitted uses on the NWR would be those uses determined to be compatible with the purposes for which the refuge is established. These proposed purposes are broadly outlined in the stated goals for the project described in Chapter 1 of the final EIS.

Comment: North of the Delta area are 22,000 acres of government-owned land that is supposed to be a wildlife refuge. It is easy to recognize because it is weeded over and obviously mismanaged.

Response: Public agencies own 2,500 acres of land north of Hood-Franklin Road that are primarily managed for wildlife refuge, not 22,000 acres as stated in the comment. In addition, the SRCSD owns another 2,600 acres, called the Buffer Lands, of which approximately half is managed to benefit wildlife, although this is not the primary management objective of the Buffer Lands. These lands are not "mismanaged" by the agencies that own them, they are simply managed for purposes other than agriculture or urban uses. An agricultural "weed", such as willows in a farm ditch or annual grasses, may be desirable in another context, such as the county wildlife refuge at North Stone Lake.

Comment: As stated on page 1-11 of the draft EIS, "The refuge should complement other efforts to minimize competition for land". This quote confirms that the boundaries drawn on a map for a refuge will decrease land values. What are the other efforts?

Response: The text on page 1-11 of the draft EIS, under "Coordinate Land Acquisition and Management Activities", refers to the Stone Lakes NWR goal of complementing, not competing with, similar land protection and habitat restoration programs already underway by other agencies and landowners within the NWR study area. These complementary programs are described in Chapter 3A of the final EIS.

There is no apparent linkage between NWR boundaries drawn on a map and decreased real estate values. See discussion of this issue in Chapter 5L of the final EIS.

Comment: The USFWS should require adequate buffers to prevent reasonable adjacent urban and agricultural land uses from affecting the refuge.

Response: Comment noted. See project description of the Mitigated Preferred Alternative in the final EIS for a discussion of proposed NWR buffers.

Comment: On a regular basis the USFWS should consider removing lands from the refuge that are subject to conservation restrictions that provide for uses consistent with the refuge goals to preserve, restore, and create natural habitats and to enhance agricultural land use to benefit wildlife and natural plant habitats. This process of evaluation must be public.

Response: Comment noted. The USFWS would not acquire fee title to lands within the NWR boundary if NWR goals are adequately served through easements, MOUs, and other legally binding agreements that benefit wildlife directly or indirectly. In most cases, however, the USFWS would seek a means to ensure that NWR objectives would continue to be served in perpetuity; otherwise, the apparent protection may be transient as land uses could change and land values increase in the future.

Comment: If an adjacent landowner outside the refuge boundary donates his property to the USFWS, will it become part of the refuge and will it require a new report?

Response: Any future changes to the Stone Lakes NWR project acquisition boundary would certainly require NEPA compliance before a decision is made by the USFWS. The USFWS refuge manager will be authorized to acquire fee title lands or easements within the boundaries approved by the Pacific Region of the USFWS as part of the ROD on this final EIS. Land donations are not likely to be a source for Stone Lakes NWR land acquisition in the future, although land exchanges with other public agencies and nonprofit land trusts are possible.

Buffers

Comment: Adequate discussion is lacking regarding buffer zones. Will the 1-mile buffer occur within or outside the refuge boundaries. This fact needs clarification.

Response: Comment noted. See the discussion of buffers in the agricultural resources section of Chapter 3, "Responses to Major Issues Raised in Public Comments on the Draft EIS". Nowhere is it proposed in the EIS to provide 1-mile-wide buffers for the NWR alternatives. A general rule-of-thumb is 50 to 500-foot-wide buffers, depending on site conditions. Buffers would be located on NWR lands.

Comment: Some sort of open space buffer land should be placed between urban residences and active agricultural land uses. The alternatives should propose how this will be fulfilled, on which properties it will occur, and its width, composition, uses, and maintenance.

Response: The USFWS is not responsible for land use conflicts between residential subdivisions and agricultural land uses, even though these lands may occur within the designated boundaries of the proposed NWR. Boundary designation would not confer any control by the USFWS of privately owned land within the NWR core area or CWMA. The provision of buffers for housing areas near farmland is the responsibility of the housing project proponent or homeowners association.

Comment: Are the agricultural uses of the buffer lands to be altered or regulated? If so, is this not de facto expansion of the refuge?

Response: The USFWS has stated that, in the case of the Mitigated Preferred Alternative, buffer zones would be within the boundaries of land owned or controlled by the USFWS as part of the NWR core area. Therefore, no expansion of the refuge is implied by the buffer designations. The USFWS could choose to lease buffer zones for restricted agricultural uses, allow the land to go fallow, or manage the area as less sensitive upland wildlife habitat, including rangeland.

Comment: Internal buffers should be adopted so that no involuntary restrictions will be placed on businesses and reclamation districts adjacent to the refuge.

Response: Comment noted. The USFWS has incorporated this measure as part of the project description under the Mitigated Preferred Alternative.

Comment: Buffer zones cannot be effectively planned because habitat values occurring on the refuge lands would be unknown.

Response: Buffer zones would be designated as part of an NWR specific plan. The location and width of buffers would be based on the type of adjacent land use, the presence of artificial or natural barriers, wildlife breeding territories, and the type and sensitivity of adjacent habitat. Permanent wetlands would require the widest buffers if nearby cropland is intensively managed, including aerial pesticide applications. Seasonal wetlands would require managed buffers primarily when they are flooded and wildlife is present. Known bird breeding rookeries would require effective buffer widths.

Land Protection Plan

Comment: Include the government policy regarding the land protection plan in the draft EIS.

Comment: The draft EIS does not include a land protection plan. The USFWS Realty Manual clearly states that a land protection plan is prepared at the discretion of the Regional Director. The manual also lists the criteria to be considered in determining when a land protection plan should be prepared. These criteria are number of landowners, controversy, size of the acquisition, and the amount of public involvement. The Stone Lakes NWR project meets these criteria; therefore, a land protection plan should have been included in the draft EIS.

Comment: Why has the USFWS not submitted a land protection plan in conjunction with the release of the draft EIS?

Response: A discussion of the purpose and requirements for a land protection plan and its relationship to the final EIS and ROD has been included in Chapter 1, "Introduction", of the final EIS. The draft land protection plan for the Stone Lakes NWR project has been prepared as a document separate from the final EIS; copies are available from the USFWS, Stone Lakes Realty Office, 2233 Watt Avenue, Suite 375, Sacramento, CA 95825.

ACQUISITION AND OPERATION COSTS

Comment: The funding of the refuge and the services necessary to properly manage it have not been addressed directly and fully. An acquisition concept plan must be developed and an analysis presented in the EIS based on these criteria and not on assumptions.

Response: Estimates of NWR restoration and land acquisition costs are discussed in the summary and Chapter 3B of the final EIS. USFWS personnel required to administer and manage the NWR are shown in Table 3A-3. Table S-6 summarizes land acquisition costs, based on the most probable assumptions available regarding NWR management objectives and acquisition methods likely to be employed by the USFWS.

Comment: How can the government justify the expenditure of millions of taxpayer dollars for the acquisition and development of the refuge when many more important "people problems" exist.

Response: Comment noted. Many important "people problems" are addressed and funded in the federal budget each year, but only a small fraction goes toward wildlife habitat protection and management. These programs benefit people in many ways by providing outdoor recreation and wildlife viewing or hunting opportunities, and creating wetlands that purify our water through natural wetland filtration processes.

Many state and federal laws have been passed in the last 25 years to protect wetlands because they are now understood to represent an important resource to people as well as wildlife. More natural habitat continues to be converted each year to agricultural and urban uses in California. The public refuge system is essential to the protection of at least a small portion of these declining habitat areas, particularly wetlands.

Comment: The long-term value of the refuge will be of greater value to society than it would if the land were to remain in agricultural or use developed as residential.

Response: Comment noted. Both refuge lands and agricultural lands are important to society in the long term. The extent of both resources is declining, although a greater proportion of wetlands have been converted in the west compared to farmland. The USFWS plans to manage its NWR system compatibly, to the greatest possible extent, possible with surrounding farmland. The Stone Lakes NWR would be accessible to urban dwellers, but agriculture is a more compatible neighboring land use.

Comment: The project area abounds with plant and animal life, including over 100 species of birds. If all these animals are in the area now, why spend millions of taxpayers dollars to change the area?

Response: A small portion of the NWR study area "abounds with plant and animal life, including over 100 species of birds". Within the boundaries of Alternative E, for example, only 29% of the area is represented by natural vegetative cover, including rangeland (Table 5E-1), and only 7% remains in wetland or riparian habitats. The remaining lands have been converted to intensive agriculture in the past 150 years. Restoring a small portion of the land in this area would protect the wildlife and native plants that depend on this area to survive.

Comment: The estimated acquisition costs do not seem to provide for "just compensation" to the landowner.

Comment: Current zoning of the property is agriculture and recreation; the present value of the property is its highest and best use. Did you reflect the recreation value in any

of your assumed assessments? Existing values are much higher than the \$1,000 per acre value shown for water and riparian land. This issue needs to be discussed in the draft EIS.

Response: Land acquisition costs for each alternative considered in detail in the final EIS are shown in Table S-6 and are based on the estimated fair market value of lands throughout the NWR study area. Easement purchase costs are based on the estimated "just compensation" for purchase of development rights, based on the difference in fair market value.

Comment: A poll of landowners affected by each alternative should be conducted to find out if they would be willing sellers, participate in co-management easements, or participate in voluntary cooperative agreements.

Comment: What if there is a 100% landowner refusal to be "willing sellers"? The draft EIS needs to address this more thoroughly.

Response: Over the 15-year period of analysis for the EIS, many landowners are expected to change their minds about their willingness to sell land or easements, or to enter into voluntary co-management agreements in the future. In the time span since the NWR was first proposed, numerous properties have changed ownership through the open real estate market. Most of the core area refuge in the Mitigated Preferred Alternative has already been acquired by other public or private parties for wildlife management purposes. The USFWS expects to sign MOUs with all or most of these landowners, if the project is approved for implementation.

Comment: The cost for each of the permits that may be required and the time frame to acquire these permits should be added to the final EIS.

Comment: Please give specific operational and acquisitional costs for Alternatives A1 and C1.

Response: Comments noted. See discussion of acquisition costs above.

Comment: The value of the land east of I-5 is between \$40,000 and \$50,000 per acre. Can the government afford to create wildlife refuges at this price?

Response: The value of developable land outside the 100-year floodplain in PUs east of I-5 probably precludes most fee title land acquisition by the USFWS. Some land, however, may be deducted or sold as easements as part of a mitigation project associated with urban subdivisions in the vicinity. Land within the 100-year FEMA floodplain has a much lower fair market value, particularly in areas zoned for large tract agricultural uses.

Comment: The creation of the refuge would not cost Sacramento anything.

Response: Comment noted. Federal appropriations would pay for NWR acquisition and development over many years.

Comment: Purchasing land for the refuge will get more expensive as time goes on, and once lost, it would be gone forever.

Comment: Adopt the U.S. Department of the Interior's appropriation of \$3 million to begin purchasing Stone Lakes properties from willing sellers.

Response: Comments noted. See discussion of acquisition costs above.

Comment: The acquisition of 1,200 acres of DPR land should be reciprocated by the transfer to the DPR of the same amount of USFWS lands. The land is recommended to be located in the San Luis Island area. In addition, if, in the future, the land acquired by the USFWS is no longer used for the primary purpose of habitat protection, the lands should be transferred back to the DPR.

Response: Comment noted. No response is necessary.

Comment: What will the USFWS policy be regarding annual and permanent transfers of water rights by an owner before, during, and after a friendly condemnation?

Response: The USFWS would seek to acquire all riparian and appropriative water rights associated with parcels of land acquired in fee title for refuge purposes. Additional water appropriations may be applied for once parcels are acquired to ensure an adequate water supply to manage NWR wetlands.

Comment: I should have the right to sell my property without any restrictions that cloud the title of the land.

Response: Comment noted. No response is necessary.

Comment: As long as fair market value is paid for the land at current agricultural prices, the long-term public good exceeds the real or potential loss to individuals.

Response: Comment noted. As part of determining the fair market value of USFWS's purchases, current market value of development potential would be assessed for agricultural parcels.

Comment: Because land acquisition will take place over a period of 15-20 years, farmers will be able to continue present farming practices until the land acquisition is made.

Response: The USFWS has no legal control over or interest in controlling the land use of private farmland within the boundaries of the NWR. Even after purchase by the USFWS, land could remain in leased agricultural use until a specific implementation plan is approved.

LAWSUITS AND LIABILITY

Comment: All previous lawsuits involving the USFWS and adjacent property owners in which the USFWS acted as either a witness or a plaintiff must be shown so that the liability impact and legal fee impact can be assessed by each area farmer.

Response: The USFWS does not anticipate using lawsuits or condemnation to implement the Stone Lakes NWR project. No legal fee impact assessment is necessary.

Comment: If the USFWS is taken to court over the refuge proposal, where will the funds come from for the litigation? Are we going to be using our taxed monies to fight ourselves?

Response: The U.S. Department of the Interior Office of the Solicitor would prepare the USFWS's case in coordination with the U.S. Department of Justice.

Comment: Public access to NWR lands will increase public access to RD lands and trespass and vandalism of private lands, resulting in higher insurance costs or more maintenance and more fencing.

Response: Most USFWS-controlled land within the NWR would not have public access (i.e., less than 30% would be accessible), or access would be limited to part of the year or to supervised groups only. USFWS rangers and staff would patrol these lands to ensure that the primary objectives of wildlife management and habitat protection are not compromised by unauthorized public access and to prevent inadvertent trespass onto adjacent private or RD lands. NWR regulations for public access and boundaries of the refuge would be clearly posted in areas where the public is allowed.

The presence of the NWR is not expected to increase insurance liability or to increase the existing levels of trespass and vandalism in the study area. However, mitigation measure 5J.4, described in Chapter 5J, "Environmental Consequences: Agricultural Resources" in the final EIS, requires the USFWS to install signage, fencing, or other suitable barriers to reduce or prevent trespass that is linked to NWR public access trails and entry points. Wherever possible, the USFWS would take advantage of natural barriers such as

creeks and sloughs, or existing man-made barriers such as freeways and canals, to confine the public to designated areas away from private land or sensitive natural areas.

The Stone Lakes refuge manager and staff would cooperate with neighboring landowners to discourage trespass, poaching, or acts of vandalism that may threaten private land or endanger refuge wildlife.

MITIGATION BANKING

Comment: Why should the farmers give up their family farms and economic livelihood so that the developers can have a mitigation bank to further develop Sacramento County?

Response: Mitigation banks are not part of the NWR project description or USFWS acquisition objectives. Mitigation banks are being considered by private developers who have purchased privately owned land to mitigate urban development projects. The lead agency is typically the City or County of Sacramento, not the USFWS. Wetland mitigation projects are typically the result of required compliance with CEQA and Section 404 of the Clean Water Act under Corps jurisdiction, not the USFWS.

Comment: Is the USFWS' attraction to creating wildlife refuges near metropolitan areas because mitigation and mitigation banking funds will be available to create a source for acquisitions of lands by and for the USFWS?

Response: No, mitigation banks are not a viable source of funding or acquisition for the Stone Lakes NWR. Currently, mitigation banking is mainly speculative and is not being considered in planning the Mitigated Preferred Alternative of the NWR. The USFWS may consider completed mitigation sites in the future for MOUs or cooperative agreements, but only if these sites represent a desirable component of refuge management objectives.

Comment: The draft EIS does not mention any plans for mitigation banking with the DWR in the north Delta area.

Response: The DWR's North Delta Plan is a complex and controversial project still in the planning stages. The DWR has not yet circulated or scheduled a public final EIR/EIS for the north Delta Plan. The DWR's consideration of mitigation banking in the north Delta area is speculative at this time.

Comment: The concept of mitigation banking should be pursued to offer alternatives to economic interests. This would help avoid prolonged litigation and dispute.

Response: Comment noted. Please refer to the discussion of mitigation banking in Chapter 2, page 2-12, in the final EIS.

ALTERNATIVES

Comment: NEPA requires that an EIS provide a detailed statement of alternatives to the proposed action. The alternatives that must be considered include offsite alternatives.

Response: The final EIS evaluates the No-Action Alternative and six NWR alternatives within the Stone Lakes study area of over 100,000 acres. Possible offsite alternatives considered but rejected for detailed analysis are adequately addressed in Chapter 3A of the final EIS. It was determined that these sites do not meet essential components of the NWR project goals described in Chapter 1 of the final EIS. Analysis and rejection of these offsite alternatives conforms to NEPA requirements. The offsite alternative most often mentioned during public comment is the Yolo Bypass in Yolo and Solano Counties.

Comment: The draft EIS does not help evaluate or allow for easy comparison of various alternatives. It is impossible to evaluate less damaging projects because the draft EIS fails to do an alternative sites analysis. This failure prejudices the outcome of the study because all it looks at are different configurations of the same project.

Response: Alternatives A and B have considerably fewer impacts than those associated with Alternative C1 or the Mitigated Preferred Alternative, which is the proposed action in the final EIS. Numerous maps, tables, and graphs throughout the EIS provide convenient and detailed comparison of the seven project alternatives. The purpose of an EIS is to provide the public and decision makers with information to enable them to make informed decisions about the project.

See comment response above and Chapter 3A of the final EIS for a discussion of offsite alternatives.

Comment: One additional alternative should be considered that includes all of Sacramento County in the refuge. This would allow the USFWS to acquire habitat anywhere in the county when and if those lands become available.

Response: Please refer to Chapter 3A of the final EIS for a discussion of the alternative development and selection process.

Comment: Alternative C1 is not extensive enough to adequately protect wildlife resources in the study area, nor will it meet project goals as described in the EIS. It should not be listed as the preferred alternative.

Comment: Additional land on the Cosumnes River floodplain is needed to give the project additional value and the large scope that it merits. Extending the refuge to provide a habitat corridor to the Cosumnes River preserve would be ideal. This corridor has the potential of becoming an important wetlands and riparian habitat.

Comment: Alternative E would create a natural buffer that would insulate the most sensitive areas from adverse effects along its borders. Increasing the size of the refuge will automatically decrease the growth and population rates of South Sacramento County.

Response: The USFWS does not create federal refuges for the purpose of controlling urban growth or population rates. NWR land acquisition is undertaken to protect existing wetlands or rare ecosystems having significant national importance and to create new habitat for waterfowl and rare, threatened, and endangered species.

Alternative E causes the greatest impact but adds little protection benefits beyond those of Alternative D. The Mitigated Preferred Alternative, USFWS's proposed action in the final EIS, does not include the Cosumnes River corridor component of Alternative D because USFWS considers the plans of other agencies and organizations for this area to be adequate to protect and restore wildlife habitat.

The draft EIS identifies the unique riparian, riverine, and oak woodland habitats of the Cosumnes River corridor and their importance regionally. The Mitigated Preferred Alternative would provide the necessary link between lands already preserved or planned for acquisition in the Cosumnes River corridor with North Delta and Stone Lakes wildlife areas.

Comment: Real floodlands, situated in the flyways, are located a few miles west of the NWR study area. Few cattle graze the area and the land is not as valuable; therefore, the refuge should be created there and not where it will disrupt so many peoples' lives. Another excellent location is the Yolo Bypass.

Response: Livestock grazing is a common agricultural land use west of the NWR study area in southern Yolo County, including the Yolo Bypass where lands are frequently flooded in winter. The range of farmland values and intensity of agricultural uses are comparable to those in the study area.

The Yolo Bypass and other offsite locations are discussed in Chapter 3A of the final EIS.

Comment: The NDC, a private land trust, would be a better vehicle to enhance the area surrounding the existing Stone Lakes. An additional alternative should be proposed creating a joint venture with the NDC and the USFWS, creating the USFWS refuge north of Hood-Franklin Road and a private refuge to the south extending southwest to the county line. The two areas would have a cooperative agreement and would comanage the areas.

The operational benefits and additional wildlife benefits of this alternative must be studied and presented in the final EIS.

Response: Comment noted. The USFWS is willing to work cooperatively in a joint venture with NDC and other private land trusts to both preserve farmland and protect and restore wildlife resources within the boundary of the Mitigated Preferred Alternative or any other alternative configuration that may be selected. However, NDC and other agricultural land trusts do not offer the wildlife management and wetland restoration capabilities brought to the area by experienced biologists from the refuge branch of the USFWS. A discussion of Alternative A1 described above is included in Chapter 3A of the final EIS.

REFUGE BOUNDARIES AND COSUMNES RIVER CORRIDOR

Comment: PU 12 might be excluded from Alternative E if the same reasoning for Alternative C1 is applied. PU 12 contains large vineyards, electric power transmission lines, a radio and television transmission tower, and lies above the 100-year floodplain. Exclusion of PU 12 would reduce the refuge by nearly 6,000 acres under Alternative E, but would reduce adverse project impacts.

Response: Comment noted. The vineyard and orchard belt of the Pierson Bend area is not included in PU 12. Vineyard and orchard land and most utility structures are all contained within PU 8, which is not part of Alternative E. PU 12 is not included in the USFWS's Mitigated Preferred Alternative in the final EIS.

Comment: Because each PU has been evaluated for its benefits and costs, they may be ranked by their relative contribution to the goals and wildlife values of the ultimate refuge.

Response: The NWR alternatives, not the individual PUs, are ranked according to their relative contribution to the NWR goals such as habitat protection. This is summarized in the Summary to the final EIS and Table S-7. Inclusion of each PU contributes to some but not all the goals of a NWR. The links between PUs and the comparison of aggregates of PUs under each alternative are more important than the isolated features of any one PU.

Comment: The USFWS might consider expanding its proposal beyond the limits of Alternative E to include lands in the Mokelumne River floodplain. This area would be a valuable natural addition to the project area.

Response: Comment noted. The floodplain and canyons of the Mokelumne River include many important riverine and woodland habitats. However, the non-Delta portion of the Mokelumne River is mostly outside the Central Valley Pacific Flyway region, which is a primary focus of the NWR project and is not adjacent to a major metropolitan area,

another prime objective of the NWR. The feasibility of a NWR in the Delta region is addressed in the EIS in Chapter 3A.

Comment: Seek the following additional acquisition to Alternative D:

- west of Snodgrass Slough, a buffer of no less than 500 feet in width, where the riparian corridor can be enhanced and protected, as a western boundary of the entire refuge and
- the riparian and wetland areas of Skunk, Laguna, and Deer Creeks, as well as some of the vernal pools that are part of Alternative E but missing from D.

Response: Comment noted. These and other sites within the NWR study area will be considered by the USFWS before it prepares its ROD.

Comment: I-5 seems to be a natural dividing line. Properties east of I-5 should be excluded from the refuge.

Response: Comment noted. I-5 is a created, not a natural, dividing line separating PUs. The Mitigated Preferred Alternative proposed action does not include any PUs east of I-5. However, the USFWS considers the Cosumnes River corridor and the tidal zone of the lower Cosumnes River, all east of I-5, to represent a wildlife and fisheries resource of major importance that should be protected. Lands in this area are being considered for protection or enhancement through easements or land purchases by several other agencies and nonprofit organizations. The Cosumnes River corridor will be considered for inclusion within the NWR by the USFWS before it prepares its ROD.

Comment: Highest priority should be given to existing and restorable wetlands and riparian areas. The grassland areas are relatively less important and could be excluded if necessary.

Response: Wetland and riparian areas generally have a higher relative value to most species of wildlife and native plants and are more uncommon compared to annual grassland. However, perennial and some annual grassland represents important waterfowl and wildlife breeding and nesting territory in association with nearby wetland and riparian habitats. Some species, such as the state-threatened Swainson's hawk, are dependent on annual grassland and certain crop types to survive.

Annual grassland in the NWR study area also supports stands of oak woodland or vernal pools. In addition, annual grassland is an excellent buffer to more sensitive habitats in the vicinity of potentially conflicting land uses. Existing annual grassland generally coincides with low-quality farmland soils. For these reasons, annual grassland areas are included within the NWR alternatives.

Comment: Why take land west of the old SPRR tracks when the majority of the land is grape vineyards, pear orchards, and irrigated crop lands? This area is not considered wetlands.

Response: Most of the area west of the SPRR was formerly covered by extensive wetlands and riparian forests. The low-lying lands (i.e., just above or below sea level) are easily converted to these natural habitats if impacts on adjacent agricultural uses can be avoided. Shallowly flooded cropland in this area would attract high densities of wintering waterfowl and shorebird migrants. For these reasons, lands west of the SPRR are included in the NWR study area. However, none of the extensive vineyard and orchard land along the Sacramento River is included in any NWR alternative.

The Mitigated Preferred Alternative includes no land west of the SPRR in the NWR core area and includes only PU 13 (i.e., Zacharias tract island) west of the railway in the cooperative management area.

Comment: The 1,155-acre Circle K Ranch should be eliminated from the wildlife refuge. The ranch is not wetlands and the owner will not be a willing seller.

Response: Comment noted. The USFWS has stated that only willing sellers or willing cooperators would be included in actively managed portions of the refuge. Privately owned agricultural operations included within the outer boundary designation of the NWR would not be affected by the USFWS, nor will the USFWS have any control over these nonparticipating lands in the future. Designation of an NWR boundary entitles USFWS only to acquire lands or easements from willing sellers and cooperators.

The Circle K Ranch is included within some of the NWR alternatives and is not within the core area of the Mitigated Preferred Alternative.

Comment: A small section of acreage on the west side of PU 6 and another on the northwest side of PU 26 should be added to the refuge because neither have housing or orchards. The PU 26 boundary should be moved to the north side of the main fork of the Consumnes River.

Response: Comment noted. These and other sites within the NWR study area would be considered by the USFWS.

Comment: Alternative C1 should be combined with Alternative D. It is irrational to develop a corridor concept in the preferred alternative area that extends to the Consumnes River but does not include that area along the river.

Response: Comment noted. These and other sites within the NWR study area would be considered by the USFWS before it prepares its ROD. The Mitigated Preferred Alternative and Alternative C1 do not include these areas because lands in this area are being considered for protection or enhancement through easements or land purchases by several other agencies and nonprofit organizations. Acquisition by USFWS may be unnecessary to protect these important natural areas and create links with the North Delta and Stone Lakes basin.

CLIMATE AND AIR QUALITY

Comment: Burning will probably take place on the refuge. Because berry and tule species grow extensively in the area, burning to restore natural habitat will occur frequently. The effects of this burning on air quality should be evaluated.

Response: The commenter is correct that burning would be one of several options available to refuge managers to maintain a desirable ratio of open water to tule habitat. Other methods used successfully to control the spread of berry, cattail, and tules include disking, water management, and deep flooding. If habitat burning were the selected treatment method, it would be regulated by the California Air Resources Board (ARB) and Sacramento Metropolitan Air Quality Management District (SMAQMD) in the same manner that agricultural burning is regulated. The burning permit process is described in Chapter 4A, "Affected Environment: Climate and Air Quality", on page 4A-2 of the final EIS.

Typically, the stubble on a given field or parcel of agricultural land is burned annually. Under NWR management, the same parcel, if restored to wetland habitat, would be burned once every several years. Therefore, implementation of any of the NWR alternatives could result in reduced emissions from agricultural burning. This information has been clarified in Chapter 5A, "Environmental Consequences: Climate and Air Quality", of the final EIS.

Comment: A detailed air quality analysis is beyond the scope of the EIS; therefore, potential air quality impacts are evaluated qualitatively. This section is flawed and should be reanalyzed. Conversion of farmlands to wetlands will change the air quality of the area. Trees, vineyards, and row crops remove dust particles from the air, convert CO₂ to food, and then release large amounts of air-purifying O₂. A management plan needs to be in place and a full study conducted on the impacts of agriculture conversion on air quality.

Response: The commenter is partially correct. Trees (including orchards) and vineyards do provide air quality benefits. However, farming practices associated with row crops require that fields be kept in a bare soil condition in fall and winter annually or at least once every few years. Soil surfaces are often disked or loosened, accelerating the rate of soil loss through wind erosion and contributing to PM₁₀ emissions.

The preserved and restored habitats in the NWR would provide a higher ratio of permanent vegetative cover than orchards and vineyards. The air quality benefits of natural habitats could be greater than the benefits of orchards and vineyards. It should be noted, however, that the proposed NWR project does not include the acquisition and restoration of orchards and vineyards.

Comment: More traffic in the area will produce a significant amount of particulate matter from paved roads that may equal or surpass the amounts of particulate matter generated by all agricultural operations.

Response: The final EIS acknowledges that establishment of the NWR could result in increased motor vehicle emissions, including PM₁₀, associated with refuge visitor traffic. This impact and appropriate mitigation measures are described in Chapter 5A, "Environmental Consequences: Climate and Air Quality", of the final EIS.

Comment: Further urban development would only aggravate the valley's pollution problem, while at the same time removing an invaluable filter of carbon dioxide. The establishment of the refuge should improve the air quality of the valley.

Response: Comment noted. No response is necessary.

Comment: The preservation of the largest possible area for wildlife habitat can substantially benefit air quality in the region in the long run. You may want to consult more closely with the Sacramento Area Council of Governments and the SMAQMD to determine long-range linkages with air quality planning. I would suggest assessing the PM₁₀ requirements under state and federal law, and the long-run benefits of refuge designation.

Response: The benefits, impacts, and appropriate mitigation measures of the various NWR acquisition alternatives are described in sufficient detail in Chapter 5A, "Environmental Consequences: Climate and Air Quality", of the final EIS.

Comment: Changes in agricultural practices in the area that would increase PM₁₀, reactive organic gas, or oxides of nitrogen emissions may fall under the jurisdiction of the SMAQMD under the Indirect Source Review Rule or new areas source rules.

Response: Comment noted. No response is necessary.

OIL AND GAS RESOURCES

Comment: The draft EIS proposes acquiring surface rights but not the underlying mineral rights. Mineral rights without surface access are of substantially less value. The taking of surface rights from either a landowner or a mineral lessee with surface access is a form of inverse condemnation without compensation. Either the payment for these losses or some form of access to the minerals needs to be addressed.

Comment: The USFWS would be forced to buy mineral rights or allow future expansion or development in the areas where land is purchased. Why does the draft EIS avoid the fact that the USFWS will have to buy mineral rights if they preclude drilling. What will buying mineral rights do to the purchase price of the land?

Comment: Undiscovered gas fields and mineral resources have not been addressed in the document. Will property owners within the boundaries of the proposed refuge and property owners adjacent to the refuge be restricted from any future gas exploration?

Comment: The draft EIS does not address the long-term economic issues of oil and gas exploration with the proposed area. The project area has been traditionally a gas-producing field in areas adjacent to all the proposed alternatives. Recent discoveries make the compatibility factor questionable. This issue should be addressed at length and analyzed for compatibility and the long-term economic effects.

Response: In fee-title land acquisitions, USFWS policy does not allow the reservation of minerals, other than oil and gas. In fee-title land acquisitions where oil and gas rights are reserved to the seller, the USFWS would negotiate with the seller to determine what restrictions will be placed on oil and gas reservations; these restrictions must be expressly stated in the deed. The USFWS would seek the inclusion of regulations or requirements governing ingress and egress and the protection of the wildlife resource and habitat. The USFWS is required by law to pay 100% of fair market value for surface and mineral rights as determined by an approved appraisal. The USFWS policy on the acquisition of mineral rights has been clarified in the discussion of fee title acquisition and conservation easements in Chapter 3A, "Alternatives Including the Mitigated Preferred Alternative", of the final EIS.

As a general rule, oil and gas leases are not issued on lands within a NWR where mineral rights are owned by the federal government. However, leases may be issued to prevent the loss of oil underlying the refuge because of drainage caused by wells drilled on adjacent private holdings, or when a determination has been made by the secretary of the interior that oil or gas extraction would be in the public interest and compatible with the major purposes for which the area was established. Leases would be issued with specific stipulations to protect wildlife and other resources on the subject parcels. Stipulations could include seasonal use restrictions, road widths, means of access, and types of equipment; stipulations must be determined on a site-specific basis.

Permits may be issued for oil and gas exploration activities on refuge lands if such activities will not be inconsistent with the purposes for which the refuge was established. Permits will be issued only to those companies or their representatives that have mineral leases on the refuge or on lands or waters adjacent to the refuge area. Exploration permits would also be issued subject to site-specific stipulations to protect wildlife and other resources.

On nonparticipating lands within the NWR acquisition boundary where oil and gas rights are owned by private parties, the USFWS may not negate or interfere with the exercise of such rights. By law, the federal government must allow private subsurface owners reasonable access to oil, gas, and minerals resources.

Comment: Arkoma Production Company of California and its partner, Benton Oil and Gas, have spent sizable capital dollars in making a new gas discovery in South Sacramento County. Establishment of this national wildlife refuge could adversely affect the individual mineral owners involved with the land.

Comment: Benton Oil and Gas Company and its partners have a new gas field discovery that is not on the maps in the draft EIS. A new field is in the early stages of development and will be a source of revenues for Sacramento County, the State of California, and the mineral owners. Additionally, jobs will be created as the field is developed and operated. The impact of potential lost revenue and jobs is not addressed in the draft EIS.

Comment: A new gas field was discovered in Pus 11, 12, and 13 on August 5, 1991. It is not shown on Figure 5B-1, "Natural Gas Resources in the Study Area and Vicinity".

Response: The final EIS has been revised to reflect this information. The new gas field is identified on Figure 4B-1, "Natural Gas Resources in the Study Area and Vicinity".

Refer to the response to the previous comment. The USFWS would have no jurisdiction over these operations as long as the private parties involved own the mineral rights. There would be no impacts on the development of the gas field and no economic impacts.

Comment: Benton Oil and Gas Company is constructing a natural gas pipeline, which is not indicated on the maps. Benton's pipeline and those of other companies serve an important function in supplying California with a constant supply of in-state produced gas. The economic impact associated with the inability to transport gas and the depressing effect on future resource development is not addressed.

Response: Refer to the response to the previous comment.

Comment: Natural gas is one of the cleaner sources of energy. Oil and gas exploration and drilling should continue to be part of the refuge complex as long as it does not create undue harm to the given species and their habitat. Drilling operations and gas pipelines are temporary uses and can be mitigated.

Response: Comment noted. No response necessary.

Comment: A production value for money generated from gas and mineral leases should be added to Tables 4J-6, 5J-7, and 5J-8. Money generated from producing and future producing wells should also be accounted for if mineral and gas explorations will be prohibited.

Response: Tables 4J-6, 5J-7, and 5J-8 address agricultural production values.

HYDROLOGY AND WATER QUALITY

Water Transfers and Water Rights and Sources

Comment: The impacts on adjacent areas caused by changes in water demand or water transfers for operation of the NWR have not been sufficiently addressed in the draft EIS. The USFWS has not identified the specific water rights and water sources expected to be utilized for NWR-created and -managed wetlands.

Response: This issue is also addressed under "Response to Major Issues - Hydrology and Water Quality" in Chapter 3 of this appendix. Refuge water supply constraints cannot be investigated in more detail because a specific plan of each PU has not been developed at this stage in the planning process. When the USFWS develops such plans, the accompanying environmental reports would address in detail water rights and water availability for lands within each PU. Based on site-specific NWR implementation plans, water demand would be estimated for that unit, and the anticipated means to secure water for NWR operation on each parcel to be acquired would be investigated. Transfers of specific water rights associated with land ownership changes or easement agreements would be investigated at the time the specific plans for each PU are developed.

The intent of the draft EIS was not to analyze the detailed effects of the proposed refuge but rather to point out the potential effects of such a refuge. Given the present level of detail of the proposed NWR, the draft EIS sufficiently addresses the effects of the refuge on existing water sources. The preliminary water budget tables presented in the draft EIS indicate that establishment of the NWR would provide for a net reduction in annual water demand over existing land use water demand.

The USFWS does not consider Folsom South Canal waters or other interbasin transfers of water to be necessary for the NWR water supply. Existing water sources and

riparian water rights within the boundaries of the NWR from the North Delta, Stone Lakes basin, Morrison Creek, Cosumnes River, and tributary drainages would be used to meet anticipated refuge water demands. The draft EIS did not address water transfers in detail because the USFWS does not anticipate utilizing major water transfers for refuge implementation.

Flooding Effects

Comment: How will the proposed seasonal wetlands affect the flood storage capacity of the North and South Stone Lakes backwater area upstream of Lambert Road?

Response: The USFWS will hold water for seasonal and permanent wetlands during the winter season as part of the NWR wildlife management plan. The volumes of water in shallow storage for managed wetlands would be small in comparison to the entire flood capacity of the Beach/Stone Lakes backwater area upstream of Lambert Road. At the predicted water surface elevation of 14 feet, the 100-year flood water level upstream of Lambert Road, the corresponding storage capacity of the Beach/Stone Lakes complex is roughly 76,000-acre-feet. However, more recent predictions of the 100-year flood elevation are closer to 16 feet, representing approximately 150,000 acre-feet of flood storage in the Beach/Stone Lakes basin.

The estimated maximum potential acreage of NWR restored wetland habitats is 376 acres of permanent wetlands and 1,696 acres of seasonal wetlands under the Mitigated Preferred Alternative. Assuming the average depth of these wetland acreages is 1 foot in seasonal wetlands and 3 feet in permanent wetlands, the maximum storage volume in NWR wetlands is approximately 2,824 acre-feet. The estimated maximum volume of water stored in wetlands represents 2-3% of the total flood storage volume and constitutes an inconsequential change in flood capacity of the basin. In addition, an unspecified portion of the wetland storage water is expected to come from upstream watershed sources that are already contributing to basin flooding under existing conditions and may not represent a net gain to basin floodwater. For a more detailed discussion of flood control issues, see the major issues section of this appendix.

If future flood control improvement projects are implemented by the Corps, DWR, or Sacramento County for the North Delta and South Sacramento County areas, the relative contribution of the NWR project to loss of storage capacity would be even less consequential. USFWS will require 15 years or more to implement planned wetland restoration projects that will be phased in as land is acquired and developed for wetlands management. Flood control improvements for the basin are expected within a 15-year timeframe.

Comments: The entire proposed NWR area is subject to flooding and is within the FEMA 100-year floodplain. How will NWR-induced changes in flood-carrying capacity

affect the watersheds upstream and downstream, such as Morrison and Laguna Creeks and Snodgrass Slough?

Response: The effects of the proposed NWR on the existing flood control system is also addressed in "Responses to Major Comments - Hydrology and Water Quality".

The 100-year flood analysis of the Stone Lakes basin developed by the Corps assumed ultimate high-density buildout of the Morrison Creek watershed. Under the ultimate buildout scenario, almost the entire Morrison Creek watershed east of the Western Pacific Railroad (UPRR) is developed as residential and commercial by 2045. Only the portion of the watershed south of Elk Grove Boulevard and east of the UPRR would remain agricultural in the Corp's hypothetical model of flood potential. This condition could be considered a worst-case scenario for flooding in the watershed.

Studies performed by the Corps indicate that the proposed NWR would not significantly change the flood storage capacity of the Beach/Stone Lakes area upstream of Lambert Road. Therefore, the NWR would have an insignificant impact on upstream and downstream flood control.

The USFWS does not anticipate that any changes to major existing flood control structures or levees will be needed for NWR implementation. Nor would the USFWS require modifications to the alignment or maintenance of important floodway channels within the basin, such as the railroad canal (i.e., Stone Lakes Slough connecting Morrison Creek and Snodgrass Slough). Flooding in the watershed upstream of the NWR study area is affected primarily by high water in the North Delta during a major flood and by the limited floodwater conveyance of channels in the watershed upstream of the refuge. These overriding factors causing flooding in the watershed are outside the control of the USFWS and would remain unaffected by NWR implementation.

Comment: Is the proposed NWR viable in view of the existing flood problems of the Beach/Stone Lakes area?

Response: Infrequent winter flooding is not incompatible with NWR operation and wildlife management in most situations. An exception is structural visitor facilities and refuge headquarters that must be located above the 100-year floodwater surface. Ample opportunities to locate the few structures needed for human occupancy are available outside the floodplain and near major roads, particularly at the north end of the refuge.

Winter flooding is a natural cycle in the Central Valley and most wildlife species, including upland species, are adapted to survive flooding for short durations.

Seepage and Local Drainage Effects

Comments: What will be the seepage effects and other drainage effects of the NWR on adjacent agricultural infrastructure caused by proposed NWR permanent and seasonal wetlands?

Response: These issues are fully addressed under "Responses to Major Issues - Hydrology and Flooding", and in the final EIS.

Groundwater

Comments: No in-depth study of groundwaters has been made for this region. How can the USFWS assess the potential impacts of the NWR on the underlying groundwater systems? How will the NWR affect groundwater supply to existing users?

Response: Given the present level of detail of the proposed NWR, and the fact that the USFWS does not anticipate using underlying groundwaters to sustain the proposed NWR, the final EIS addresses the existing groundwater system and the effects of the refuge on existing groundwaters sufficiently.

Some of the proposed permanent and seasonal inundated areas of the NWR could cause locally high groundwater levels on adjacent lands due to seepage. These impacts are, however, evaluated in the final EIS under the discussion of impacts due to seepage. The recommended monitoring, avoidance, and mitigation measures presented are considered adequate to prevent the loss of use of adjacent farmland.

Annual and Seasonal Water Demand

Comment: How can the USFWS anticipate a decrease in total water demand from existing conditions and land uses with implementation of the NWR? Wetlands by definition require a lot of water to be maintained.

Response: As stated in Chapter 5D of the final EIS, water applied during the nongrowing season (i.e., fall and winter) would increase over existing conditions to fill and maintain the managed seasonal wetlands. The evapotranspiration rate of water loss in wetlands is minor during the nongrowing season under the Mediterranean climate of the Sacramento Valley. NWR water use would decrease during the growing season, as compared to existing conditions, because NWR habitat acreage consisting primarily of grasslands and dry seasonal wetlands would be dormant and require less water than existing agricultural uses. Agricultural water use occurs during the peak of evapotranspiration loss that occurs during the hot summer season in the valley. The net result of the changes in land use with NWR implementation would result in a reduction in annual water demand as shown on Table 5D-1.

Adequacy of Mitigation Measures

Comment: The mitigation measures prescribed in the draft EIS for changes in water demand, water availability, and seepage due to implementation of the NWR are not acceptable. How can local farmers be compensated for NWR impacts after the impacts have occurred?

Response: Comments noted. Water availability to local farms would not be affected by operation of the NWR, as discussed in previous responses to major issues and comments. Water demand in the affected NWR area would experience a net decrease during the season of highest water use by agriculture. In addition, the managed draining of NWR seasonal wetlands during spring and early summer would contribute a higher quality of stored water to existing water supply sources in the basin and North Delta.

The mitigation measures pertaining to surface water and groundwater changes due to the NWR have been revised in the final EIS to avoid any ambiguity about the intended measures needed to correct or avoid the problems identified. Please refer to the mitigation measures section in Chapter 5D of the final EIS.

The changes were made to ensure that seepage impacts are avoided through effective planning and design of managed wetlands and, if any changes occur in spite of the best efforts of the USFWS, the changes will be detected and the problem corrected.

Water Quality

Comment: Table 4D-4 is dated 1984; are current data available for this sample? Since 1984 many development projects have taken place. In 1984, contaminant levels were high, considering what they are today.

Response: Comment noted. The best available data were used to evaluate water quality impacts associated with development of the Stone Lakes NWR. Concerns about the current contaminant levels are reflected in mitigation measure 5D.9 in the final EIS.

Comment: With the high mercury and copper concentrations found in largemouth bass, how can the USFWS say that fishing will be open to the public?

Comment: What do these contaminants in the water do to the birds, the mammals, the plants, and the people?

Comment: A Toxic Substances Monitoring Program (TSMP) sample of largemouth bass should be taken from every source of water in the study area.

Response: These concerns would be addressed by the USFWS and others in the scope of future studies of water sources as recommended in mitigation measure 5D.9,

"Develop and Implement a Water Quality Control Program for the NWR", in the final EIS. Planning needs and management methods for identified problem areas would be based on the results of the water quality monitoring program. Proposed management goals for specific areas (i.e., fishing and hunting) would be based, in part, on these findings.

Comment: An assumption should be made that treated or untreated wastewater from surface runoff will discharge through the Stone Lakes NWR and will be part of the water supply. Another assumption is that if Sacramento Regional Wastewater Treatment Plant cannot discharge water into the Sacramento River it will be forced to release into Stone Lakes. How will the USFWS allow this to happen if it can be assumed that it will be in conflict with the biodiversity goal of the refuge? Will this discharge of high organic nutrients create a problem with mosquito control in the refuge?

Response: The discharge of urban runoff and agricultural drainage into waters going to the NWR has been addressed in the final EIS. The existence of these discharges is not an assumption, but a fact of the existing conditions in many water bodies in the Stone Lakes area.

The commenter is incorrect in the assumption that effluent from the Sacramento Regional Wastewater Treatment Plant would be discharged into Stone Lakes in the event that discharge into the Sacramento River is not possible. This assumption is erroneous because the discharge of this effluent to any other location is prohibited under the current NPDES permit and would have to be approved by RWQCB before discharge to another location. The constructed wetlands project being developed on the SRCSD Buffer Lands will not discharge effluent into Laguna Creek unless the effluent meets appropriate water quality requirements and discharge is approved by RWQCB.

Comment: Page 4D-27 of the draft EIS states that the levels of mercury "exceeded the chronic toxicity criterion of 0.012 $\mu\text{g/l}$ by at least tenfold in each of the four samples". The study continues about mercury concentrations that "exceeded the National Academy of Sciences guideline level for protection of fish and their predators". Why was this toxic situation not studied for mitigation, especially when the USFWS would be luring birds into a known poisonous area?

Comment: According to the draft EIS, other metals were detected in concentrations exceeding water quality and human health criteria. Some of the data used were from 20-year-old studies and do not reflect current conditions because the population of the City and County of Sacramento has increased substantially. These pollutants and those from other sources need to be addressed as a public health issue and proper solutions offered before the proposed NWR can be established.

Response: Mitigation measure 5D.9, "Develop and Implement a Water Quality Control Program for the NWR", is recommended to reduce significant impacts directly associated with the potential dispersal of pollutants or pesticide residues in refuge waters.

The water quality control program would require a water quality investigation to clearly identify problem areas and development of methods to manage these areas. These areas would also be closely monitored and managed by the USFWS directly or under an MOU with other agencies and landowners. The description of mitigation measure 5D.9 has been expanded in the final EIS to reflect these comments.

Comment: What if the regional sewage treatment plant area is planning to use this swamp (e.g., Stone Lakes area) for dumping water? Since even treated water cannot be freed of certain virus or bacterial contamination, will the USFWS provide independent monitoring and testing of established wells to protect against groundwater contamination?

Response: SRCSD is bound by its NPDES permit to discharge only disinfected secondary effluent to the Sacramento River. Discharge of this effluent to any other location is prohibited under the current permit and would have to be approved by RWQCB under an amended permit. Approval by RWQCB would occur only if SRCSD could demonstrate that effluent quality met water quality standards for the new receiving waters.

Comment: Page 5D-3 of the draft EIS lists a beneficial impact of using swamp vegetation as a filter for some pollutants. Please supply the scientific data and the percentage effectiveness of this benefit at other existing refuges.

Response: Detailed data on the effectiveness of wetlands in improving water quality are not appropriate or necessary for treatment in this document. On page 5D-29 of the draft EIS, a reference for this information was given (Hammer and Bastian 1989). The reference states that "wetlands can effectively remove or convert large quantities of pollutants from point sources and nonpoint sources, including organic matter, suspended solids, excess nutrients, and metals". This reference provides ample scientific information about wetlands and water quality.

Comment: Mitigation 5D.10 does not seem to be well thought out. What good would it do to divert potentially toxic peak flows into the Sacramento River when this study has taken several pages to carefully describe how the proposed NWR would use backwater from the Sacramento River? Page 4D-31 of the draft EIS states "water quality in Snodgrass Slough, SPRR canal, and South Stone Lake probably reflects the water quality in the Sacramento River and Delta".

Response: In general, peak winter storm flows contain lower concentrations of toxic pollutants than lower flow fall storms. Low to moderate storm flows would be controlled at sump pump 90 (and the proposed expansion). Mitigation measure 5D.10 has been revised in the final EIS to state that the intake of Sacramento River water via Snodgrass Slough or the SPRR canal during these periods would be controlled until diverted flows from sump pump 90 passed downstream.

Comment: Sump pump 90 is not currently operated to remove polluted water. The operation of the pump in this fashion (e.g., mitigation measure 5D.10) would cause the level of Beach Lake to rise and would in turn reduce the storage capacity of the lake and increase the possibility of pollutant spill-off into the Stone Lakes area.

Response: Although sump pump 90 was not originally designed to divert pollutants away from Lower Beach Lake and the Stone Lakes area, the current operation does provide some level of pollutant removal. Since sump pump 90 cannot handle all the flow of Morrison Creek during major storm events, some of this water already goes into Lower Beach Lake and North Stone Lake. Therefore, the proposed use of sump pump 90 in mitigation measure 5D.10 would not be significantly different from the existing operation. The net effect of operation of sump pump 90 is to reduce flood levels in Beach Lake. The discussion of the operation of sump pump 90, as well as proposed future flood control plans, has been expanded in Chapter 4D, "Affected Environment: Hydrology and Water Quality", of the final EIS.

WILDLIFE, VEGETATION, AND WETLANDS

Purpose of Refuge

Comment: Protecting biodiversity is not an appropriate purpose for a USFWS refuge.

Response: The Endangered Species Act of 1973 (16 USC 1531-1543), as amended, provides authority for the USFWS to acquire lands for protection and preservation of endangered species. The USFWS is represented on the Executive Council established by an MOU entitled: California's Coordinated Regional Strategy to Conserve Biological Diversity. The Executive Council is tasked to "develop guiding principles and policies, design a statewide strategy to conserve biological diversity, and coordinate implementation of this strategy through regional and local institutions".

Noxious Weeds

Comment: Four commenters were concerned with the effect of weeds on adjacent agricultural land and stated that the USFWS should control the spread of noxious weeds from the refuge.

Response: The presence of noxious weeds in south Sacramento County is an existing condition resulting from frequent ground disturbances associated with normal farming practices. The final EIS concludes that the spread of noxious weeds would be a less-than-significant impact. Mitigation measure 5E.1 is recommended to control weeds within the refuge so that they do not interfere with natural habitat creation and enhancement efforts (refer to page 5E-24).

Urban Conversions of Wetlands

Comment: The draft EIS should state that wetland losses have occurred due to agricultural uses, as well as conversion to urban development.

Response: The statement about wetland loss on page 1-3 of the draft EIS includes "flood control projects, conversion to farmland, and urban development" as factors in wetland loss.

Wetland Buffers

Comment: Upland areas are important as wetland buffers and should be included in the NWR acquisition area.

Response: The refuge includes protection of upland grassland and oak woodland habitats that in many cases surround and provide buffers for wetland and riparian habitats.

Conflicts with Interstate 5

Comment: The new Laguna Parkway off-ramp on I-5 is incompatible with the establishment of a wildlife refuge. The ramp will generate thousands of vehicle trips per day and appears to be in conflict with the goals of the project.

Comment: The Stone Lakes area would not be a successful refuge and breeding grounds for migratory birds with I-5 running through and adjacent to the refuge because of heavy traffic and unhealthful emissions.

Comment: What are the impacts of increased auto accidents that may occur in increasing numbers on the freeway system because of crossing species?

Comment: Wildlife avoid I-5 and therefore would not use the NWR.

Response: In general, wildlife avoid major traffic corridors such as I-5. However, this interstate passes within 100 yards of the Sacramento NWR, and refuge personnel report no increase in road-killed wildlife compared to similar stretches of highway to the north and south. Observations of wildlife at Sacramento NWR suggest that most mammals and other terrestrial species avoid crossing the interstate and flocks of waterfowl typically fly above the passing traffic, even at night and during other low-light conditions. At the Stone Lakes project area, Jones & Stokes Associates biologists observed more than 10,000 ducks (mostly mallards and pintails) within 200 yards of I-5 at the Buffer Lands on January 12, 1992. This suggests that waterfowl and other wildlife make extensive use of suitable habitats within 100 or 200 yards of the I-5 corridor.

Waterfowl Use of the NWR

Comment: The Stone Lakes NWR is not on the Pacific flyway. Another refuge site should be found to the west that is on the flyway.

Response: As stated on pages 4E-12 and 4E-13 of the draft EIS, the Stone Lakes area historically attracted fewer waterfowl than other areas in the Central Valley, such as the Butte Sink, Colusa Basin, and Yolo Basin. However, the Stone Lakes project area currently includes important wintering and migratory habitat for waterfowl and shorebirds, especially at the Buffer Lands, North and South Stone Lakes, and along the Cosumnes River corridor. Because wetland habitats have declined dramatically throughout the Central Valley, these permanent wetland areas are especially important to nesting waterfowl, including mallards, gadwalls, cinnamon teal, and wood ducks.

Comment: The giant garter snake observation indicated in Figure 4E-3a at Snodgrass Slough and Lambert Road was made on private land without the permission of the owner.

Response: The location of this giant garter snake occurrence was derived from the California Department of Fish and Game's Natural Diversity Data Base (NDDDB) (1989). The NDDDB file indicates that this is a general rather than a specific location and that the observation was made from a roadside in 1974.

Comment: Predators on waterfowl at the refuge could be controlled by public trapping of furbearers.

Response: It is not USFWS policy to remove native furbearers from NWR lands, even if they prey on waterfowl. However, introduced species such as feral cats are significant predators on waterfowl and other wildlife. Depredation permits can also be obtained for specific problem animals, especially if they prey on domestic livestock.

Comment: Boating does not affect wildlife.

Response: It is true that nonmotorized boating can be conducted with minimal disturbance of wildlife. However, motorized boats operated at high speeds (e.g., for water skiing) causes direct disturbance of sensitive species such as waterfowl, herons, egrets, and large mammals. High-speed motorboats also create large wakes that erode levees and disturb native vegetation, creating a need for artificial reinforcement such as rip-rap.

Comment: Crop depredation by wildlife is a problem for farmers and mitigation measures should be more fully developed.

Response: Crop depredations by wildlife are an existing problem in the project area. As described in Chapter 5E of the draft EIS, the primary crop damage in vineyards and orchards is caused by European starlings and house finches. Waterfowl are primarily present in fall and winter and few crop depredation problems are reported near existing refuges in the northern Sacramento Valley. Rice and most other grain crops are harvested in the early fall, before the arrival of large concentrations of waterfowl. Most other wildlife that would be attracted to the refuge are tied to native habitats and are unlikely to depredate nearby crops. However, should specific crop depredation problems arise, the USFWS would investigate planting certain grain crops (e.g., wild rice) to attract birds to managed refuge lands.

Conflicts between Wildlife Management and the Television Towers in the Study Area

Comment: Potential problems associated with the television towers in the southern portion of the study area have not been addressed.

Comment: The draft EIS does not address the impacts of the television towers in Walnut Grove on waterfowl kills due to the wires and the effects of the lights on the travel of these species.

Response: The commenter is correct that the television towers could represent potential navigational hazards to large flocks of birds in flight, primarily during nighttime fog conditions. Towers and guy wires represent the greatest hazard to birds when they are located between nearby areas of high-quality feeding and loafing habitat. Birds moving in large flocks at low altitudes between habitat sites could be at risk for fatal collisions. Wetland restoration projects would be designed to ensure that adequate buffers of nonwetland habitat separate the towers from nearby wetlands. The towers are excluded from the NWR core area and CWMA boundaries under the Mitigated Preferred Alternative.

Importance of Consumptive Recreation Uses in Protecting Habitat

Comment: The draft EIS does not recognize the importance of consumptive uses in protecting habitat. For example, hunting is an important means of dispersing wintering waterfowl throughout available habitat on the refuge and on adjacent lands. This is important in reducing the effects of avian diseases on concentrated birds. Trapping is the only feasible method of controlling furbearer predation on waterfowl. Research shows that 80% of duck mortality is caused by furbearer predation on the adults and their nests. A regulated public trapping program could turn marginal wetlands, such as annual grasslands with vernal pools, into effective nesting habitat for waterfowl and other birds.

Response: The draft EIS identifies public and private hunting as potentially compatible recreational uses on portions of the NWR (and CWMA under the Mitigated Preferred Alternative and Alternative D). The purpose of the draft EIS is to identify the potential impacts and benefits of land acquisition for a NWR; the draft EIS is not intended to identify all the potential impacts and benefits of various refuge management alternatives.

Decisions regarding the opening of the proposed Stone Lakes NWR to hunting and trapping would be made after establishment of the refuge and land acquisition. A hunting plan and environmental assessment are required before a refuge can be opened to hunting. The approval of a trapping program on the refuge would require a trapping plan; the plan must include an assessment of trapping desirability or acceptability. These activities must be compatible with refuge objectives and management goals. The benefits and impacts of trapping and hunting on habitat management would be evaluated in the hunting and trapping plans. (U.S. Fish and Wildlife Service 1982.)

FISH AND WATER FLOW

Comment: What is the plan for maintaining water flow needed for certain fish and preventing salt intrusion? Won't that increase the need for more water than this draft EIS has allowed?

Response: No increase in water use for NWR purposes is anticipated to maintain resident fish populations or to prevent saltwater intrusion in the North Delta. This is the responsibility of other agencies and other projects or policies under consideration by state and federal agencies. The permanent open water areas of the NWR alternatives have adequate water supplies that support viable resident fish populations.

Comment: The draft EIS refers to water level flux in seasonal wetlands, which will increase fish mortality. How will the establishment of the refuge affect the sport fishing in the area?

Response: Sport fishing in the NWR study area occurs primarily at public road bridge crossings north of Lambert Road and in the tidal waterways of the North Delta. NWR wetland management on shallowly inundated former uplands is not expected to affect sport fishing in North Delta waterways. Seasonal wetlands will provide feeding and rearing habitat for small fish, and some may become entrapped in isolated pools or ditches following drawdown.

Comment: There are contradictions in the draft EIS in regard to management practices. Page 5D-44 states "enhance habitat for aquatic organisms that help control growth of emergent vegetation, such as crayfish and carp". Page 4F-9 states "carp and goldfish are generally considered nuisance species because they uproot and feed on aquatic vegetation". Pages 5F-5 and 5F-6 state "game fish and native species, however, could be adversely affected if nuisance species such as carp and goldfish . . . are enhanced. A fishery management plan should be incorporated into the NWR to minimize favorable conditions for nuisance species." These statements are inconsistent.

Response: Comment noted. Carp is not a species targeted for enhancement by the USFWS, but plentiful crayfish would benefit both mosquito control and wading birds and small mammals that feed on them in shallow wetlands. A fisheries management plan will be prepared as part of a NWR specific plan, once the USFWS decides whether to proceed with the Stone Lakes NWR project.

Comment: The refuge is needed to ensure heavily shaded river habitat important to fish and to protect vital habitat that would increase populations of several declining native fish species.

Response: Comment noted. Riparian restoration objectives are based primarily on existing waterways and waterbodies that need more shaded aquatic canopy to enhance wildlife and fishery values.

Comment: Restoration of aquatic habitat should be implemented in future planning for the habitat.

Response: Aquatic, open water habitats are plentiful in the NWR study area. However, permanent marsh, riparian forest, and seasonal wetlands are limited in extent. Therefore, these habitats have been emphasized in the restoration concept plan for NWR alternatives. Some aquatic habitat will be provided as an integral part of each water-dependent habitat restoration site.

CULTURAL RESOURCES

Comment: Protection of historic and cultural resources is not one of the goals of the project listed on page 1-7 of the draft EIS. What is the policy on protection of historic and cultural resources in a NWR?

Comment: Will historic and cultural sites be studied? When? By whom?

Response: USFWS undertakings are subject to the policies prescribed in the National Historic Preservation Act (NHPA) and other historic preservation laws. The USFWS policy for the management of cultural resources on units of the NWR system is outlined in the Refuge Manual. It is the policy of the USFWS to identify, protect, and manage all significant cultural resources under USFWS jurisdiction for the benefit of future generations. The USFWS will administer, preserve, and protect these resources to maintain their value for scientific study and public appreciation and use. (U.S. Fish and Wildlife Service 1982.)

The USFWS will ensure that during the appropriate stages of decision making affecting historic and cultural resources full consideration is given to cultural resources. Modifications or demolition of buildings and facilities listed in, or eligible for listing in, the National Register of Historic Places (NRHP) cannot be authorized without compliance with Section 106 of the NHPA. Proposed construction and restoration projects will be evaluated to determine the need for cultural resource surveys. Agricultural development and road, building, pipeline, impoundment, and fenceline construction often require surveys. These evaluations and surveys will be made by a qualified professional; identified resources will be evaluated for significance relative to legally established criteria and professional standards. Actions will be taken to avoid, reduce, or ameliorate the adverse effects of a proposed project on cultural resources. (U.S. Fish and Wildlife Service 1982.)

Permits for archeological research may be granted to reputable museums, universities, colleges, or other recognized scientific or educational institutions for archeological research.

Comment: Detailed facilities, designs, and site-specific refuge management proposals are unavailable. Therefore, potential impacts on cultural resources can be evaluated only generally. Is this beyond the scope of the draft EIS?

Response: The purpose of the draft EIS is to identify the potential impacts and benefits of land acquisition for a NWR. The benefits and impacts on cultural resources cannot be evaluated specifically because site-specific parcels have not been identified for acquisition, site-specific restoration or other refuge management projects have not been designed, and site-specific inventories of cultural resources have not been conducted. The qualitative evaluation of impacts in the EIS is considered adequate for the proposed land acquisition. Refer to the response to the previous comment regarding USFWS policies on protection of historic and cultural resources in a NWR.

Comment: The draft EIS fails to comply with the NHPA and other federal and state laws listed on page 5G-2. To comply with these laws, the USFWS should:

- identify and evaluate historic properties;
- consult with the state historic preservation officer, representatives of other agencies, and historical societies on ways to mitigate impacts on cultural resources; and
- consider local Native American groups and other interested parties.

A supplemental draft EIS that demonstrates compliance with these legal requirements should be made available for public review and comment before preparation of the final EIS.

Response: Refer to the response to the previous comment for a discussion of USFWS compliance with the NHPA. Refer to the discussion of the issue regarding the need for a supplemental draft EIS in Chapter 3, "Major Issues Raised in Public Comments on the Draft EIS", of this document.

Comment: The EIS has not properly informed the public regarding the historic nature of the study area.

Response: NEPA CEQ regulations require that the description of the affected environment in an EIS be no longer than is necessary to explain the effects of the alternatives. The description of the historic setting of the Stone Lakes study area in Chapter 4G of the draft and final EIS provides adequate detail to assess the potential impacts of no action and refuge alternatives on historic resources. Refer also to the response to the previous comment.

Comment: The draft EIS needs to further describe what is meant by surveillance and monitoring of archeological properties. What would these methods entail and how will they create a beneficial environment?

Response: Archeological and historic sites can be subject to damage from a variety of sources, including weathering, erosion, vandalism, grazing, tree root systems, rodent burrowing activity, cultivation, and illegal removal of artifacts. The USFWS is charged with the responsibility to protect and manage these sites. A monitoring and protection program would require periodically checking known sites, evaluating site conditions, and developing measures to protect the site or remediate damage. A cultural resources protection program should also identify ways to educate the public about cultural resources values. The purpose of the program would be two-fold: to protect known sites and to reduce the potential for damage by humans through education.

Comment: Archeological properties are better protected on private land where there is no public access for illegal collection of artifacts or vandalism.

Response: Comment noted. No response is necessary.

Comment: The adherence to general statements on the bottom of page 5G-2 of the draft EIS is inadequate. The EIS must address the consequences thoroughly.

Response: The discussion on page 5G-2 of the draft EIS defines the criteria used in the environmental analysis to assess the significance of an impact. This discussion is not intended to be a description of the impacts of the project. The impacts, or environmental consequences, of the various alternatives are described on pages 5G-4 through 5G-6 of the final EIS.

Comment: The area is an important part of California history and as such should be guarded and retained for generations to come.

Response: Comment noted. No response is necessary.

Comment: Some of the oldest historic buildings and sites in Sacramento County are found within the proposed NWR boundaries, including the "Chinatowns" of Courtland, Locke, Walnut Grove, and Isleton; the Senator William Johnston house ("Rosebud"); the John Crofton house; and the Solomon Runyon house. Many are over 100 years old and listed in the NRHP.

Response: All buildings and sites that could be affected by the proposed Stone Lakes NWR project will be identified in subsequent Section 106 compliance procedures. Section 106 requires that the impacts on NRHP-eligible properties be considered.

Comment: The draft EIS dismisses as insignificant the impact of the refuge on the culture of the area. The impacts of including an area that has been largely used for farming and recreation in a NWR in which both uses are prohibited or greatly curtailed are definitely significant. These impacts on the local people need to be specifically addressed.

Comment: The Delta is a unique, living cultural community and will be destroyed by the wholesale destruction of its agricultural and river-based economy. Physical remnants are but only a portion of this diverse community, which has been in existence for over 140 years. The entire area could be considered significant under CEQA Appendix K. The EIS needs to evaluate the area's special historic qualities for preservation before the NWR is established.

Response: Appendix K of CEQA and Section 106 of the NHPA provide criteria to assess the significance of a project's impacts on historic resources. However, these criteria do not focus on the impact on a way of life or culture but rather on the impact or changes to physical structures or the environmental setting. Impacts on historic resources would be evaluated in compliance with Section 106 procedures after specific parcels of land have been acquired and specific projects have been designed and developed.

Under Alternatives B through E and the Mitigated Preferred Alternative, the displacement of agriculture is expected to have a less-than-significant impact on employment and income in the county's agricultural sector and in the regional economy. Increases in jobs and income in recreation-related retail trade are considered beneficial under all the refuge alternatives. The destruction of the Delta economy is not expected.

LAND USE

Comment: There is no discussion regarding potential impacts on other communities such as the City of Sacramento, Courtland, or on river properties that would be adjacent to the refuge on the west. If such potential impacts are not anticipated, the draft EIS should say so.

Response: The EIS identifies and describes the expected impacts of the proposed project. In some cases, the EIS describes situations in which no impacts or only less-than-significant impacts on a particular resource would exist. These discussions are included for significant issues and concerns identified in scoping for the EIS. It is not necessary to identify all instances in which impacts are not expected.

Comment: It seems to me that again you are willing to put animals over the rights of humans since the area was originally designed for park and recreation use, and as the population of southwestern Sacramento County grows, in particular Laguna Development, a large regional park will be needed in the area.

Response: Comment noted. The SCDPR is responsible for planning for the county's regional park needs.

Comment: The draft EIS states that inventory and mapping of all land uses in the study area are beyond the scope of this EIS and land uses and population patterns are generally based on aerial photographs, 1984 DWR land use maps, topographic quadrangles, and other maps and planning documents. How can you make sound assumptions of cost analysis, crop losses, income lost, and jobs lost when land uses in the study area are beyond the scope of the EIS? How can you make accurate assumptions using 1984 DWR aerial photography for land uses and population patterns?

Response: Agricultural land uses in the study area are based on 1984 DWR land use maps; vineyard acreage was updated to reflect 1990 conditions. The impacts of the proposed project on crop losses, income, and jobs are evaluated in Chapters 5J and 5L of the EIS, respectively.

The DWR land use maps also designate the locations of semi-agricultural land uses, such as farmsteads, feedlots, and dairies, and urban uses such as residential, commercial, and industrial developments; recreational uses are also identified. The DWR land use maps and other listed data sources were used to identify land use patterns. Population patterns in the study area were identified using the population information for census tracts in and overlapping the study area. The population information is displayed in Figure 4H-1.

The purpose of the draft EIS is to identify the potential impacts and benefits of land acquisition for a NWR. The benefits and impacts on specific land uses cannot be evaluated because site-specific parcels have not been identified for acquisition. The qualitative evaluation of impacts in the EIS is considered adequate for the proposed land acquisition.

Comment: Why is development considered a threat to destroy this agriculture area? Page 4H-2 of the draft EIS states that these rural communities are areas that are not expected to experience significant population growth over the next 20 years.

Response: Please refer to the discussion of urbanization issues presented in Chapter 3, "Responses to Major Issues Raised in Public Comments on the Draft EIS", of this document.

Comment: The establishment of the refuge presents an opportunity to implement a TDR, PDR, or scenic easements program to protect the underlying value of land.

Response: Comment noted. No response is necessary.

Comment: The Stone Lakes project would be a sensible plan for land use with consideration for agriculture and urban development.

Response: Comment noted. No response is necessary.

Comment: Inclusion of the Elliott Ranch property (PU 7) in all of the alternatives except the No Action Alternative is inconsistent with the owner's existing plans for the property. The owner has planned for urbanization of the property, and has gone to considerable expense to design the property for such development.

The criteria for determining the significance of land use impacts (page 5H-2 of the draft EIS) is based solely on existing land use designations or the plans, policies, or

regulations established by the county. For the past three years or so, Sacramento County has been developing a new general plan proposal, copies of which have been available since the first of this year. Failure to examine the proposed land uses contained in the general plan is a head-in-the-sand approach, especially with regard to Elliott Ranch. The proposed county general plan accommodates the proposed wildlife refuge by gerrymandering the proposed Urban Service and Urban Policy boundaries described therein to exclude the Elliott Ranch from any urban development for an undefined period.

Response: The analysis in final EIS evaluates the effects of the proposed NWR alternatives based on potential conflicts with the existing county land use plan. No practical method is available to predict the outcome of the proposed county general plan update process; any assumptions on the content of the final general plan update document would be purely speculative. The proposals in the update are controversial and subject to change based on public and agency comments submitted on the draft environmental impact report (EIS); the draft EIR is available for public review through April 30, 1992.

Lands in PU 7 are designated and zoned for agricultural land uses. Urban development projects would require a general plan amendment and an environmental evaluation by the county to comply with CEQA.

If the decision in the ROD on this final EIS is to proceed with the proposed Stone Lakes NWR project, the USFWS would work with willing landowners to negotiate fee-title acquisitions or conservation easements to protect any lands in PU 7 included within the authorized acquisition boundary.

Television Towers

Comment: Are we to assume that these towers will be removed? What about the millions of people dependent on these television services?

Response: The television towers would not be removed. The USFWS would not seek to acquire land where existing or proposed uses would conflict with refuge objectives. The final EIS indicates in the assumptions for the evaluation of impacts on land uses on page 5H-1 that the USFWS would not specifically seek to acquire real property, such as residences, farm buildings, or commercial facilities. Lands with these types of improvements are identified as nonparticipating lands within the refuge acquisition boundary. Easements would also typically exclude these types of improvements.

The television towers are excluded from the boundaries of the NWR core area and CWMA under the Mitigated Preferred Alternative.

RECREATION AND PUBLIC ACCESS

Recreational Opportunities and Impacts

Comment: In presenting Alternatives A and A1, the EIS must also present and compare other possible uses for North Stone Lake, including a zoo, visitors center, and a county park.

Response: The SCDPR is responsible for planning for the North Stone Lake Wildlife Refuge property. The SCDPR has completed a master plan for the refuge and is implementing the first phase of a restoration program for the site. The USFWS's Stone Lakes NWR project proposes that the county wildlife refuge be included in the NWR and cooperatively managed under an MOU between the USFWS and the SCDPR.

Comment: Why is an inventory of the study area's recreational resources and existing uses beyond the scope of the EIS?

Response: In response to public comments, the USFWS has expanded and revised the description of recreation uses and opportunities in the final EIS. Please refer to the discussion of major recreation issues in Chapter 3, "Major Issues Raised in Public Comments on the Draft EIS", of this document.

The final EIS does not include a detailed inventory of the study area's recreational resources and existing uses. The purpose of the draft EIS is to identify the potential impacts and benefits of land acquisition for a NWR. The information presented in the EIS is adequate for the evaluation of the environmental effects of land acquisition under the various refuge alternatives.

Comment: The USFWS should emphasize that active recreational uses probably will not be permitted in the refuge because of impacts on wildlife. The draft EIS identifies several active uses that would likely adversely affect the wildlife the refuge is trying to protect.

Response: Recreation uses would be allowed only if they were compatible with wildlife management objectives of the NWR. This is stated in the discussion of public use and access in Chapter 3A, "Alternatives Including the Mitigated Preferred Alternative", and Chapter 5I, "Environmental Consequences: Recreation and Public Access", of the final EIS.

Hunting

Comment: Will hunting be allowed in the refuge?

Comment: How will the refuge affect the hunting privileges that so many hunters have in the Delta?

Comment: The encouragement of hunting adjacent to vineyards and agricultural land is not considered a compatible activity.

Comment: Hunting and trapping should not be allowed in the refuge.

Comment: None of the alternatives listed as options for the refuge exclude hunting, trapping, or other consumptive uses of wildlife. The draft EIS should include an alternative that prohibits these activities and maintains a safe haven or sanctuary for wildlife.

Comment: A portion of the refuge should be open to controlled hunting and fishing with limited recreational use.

Comment: The draft EIS does not adequately address the demand for public hunting facilities in the Sacramento area. Although the number of waterfowl hunters has declined in recent years, this is a result of habitat loss, rather than a lack of interest. A strong hunting program, coupled with habitat enhancement, will increase demand for hunting opportunities in the study area. The 10% limitation would not accommodate the existing demand.

Comment: The draft EIS does not recognize the benefits of a stronger public hunting program, including creation of demand for private hunting clubs in the study area with increased habitat conservation, and increased wetlands conservation funding through license and Duck Stamp revenues.

Comment: The encouragement of hunting adjacent to vineyards and agricultural land is not considered a compatible activity.

Response: The EIS identifies hunting and other potentially compatible recreational uses that could be allowed on the NWR (and CWMA under the Mitigated Preferred Alternative and Alternative D). A public hunting program could be compatible with the wildlife management objective of the NWR; private landowners could operate private hunting programs (such as duck clubs) on lands under conservation easement in the NWR or CWMA.

Decisions regarding the opening of the proposed Stone Lakes NWR to hunting, trapping, or any other public use would be made after establishment of the refuge and land acquisition. A hunting plan and environmental assessment are required before a refuge can be opened to hunting. The approval of a trapping program on the refuge would require a trapping plan; the plan must include an assessment of trapping desirability or acceptability. These activities must be compatible with refuge objectives and management goals. The benefits and impacts of trapping and hunting, including habitat management, public demand, and compatibility with adjacent land uses, would be evaluated in the hunting and trapping plans. (U.S. Fish and Wildlife Service 1982.)

The purpose of the draft EIS is to identify the potential impacts and benefits of land acquisition for a NWR; the draft EIS is not intended to identify all the potential impacts and benefits of various refuge management alternatives. Therefore, the evaluation of an alternative that excludes a public use, such as hunting, is not required. Management alternatives will be evaluated after establishment of the refuge and land acquisition.

Comment: Each of the refuge alternatives limit the consumptive uses to about 10% of the refuge lands. This is less than allowed on other Central Valley refuges and far less than the 40% allowed by federal law. The limitation is arbitrary. The EIS unfairly deemphasizes consumptive uses, even though they are not incompatible with either refuge goals and management or with nonconsumptive uses.

Response: The Migratory Bird Conservation Fund (MBCF) is used to acquire lands or interests in lands for use as migratory bird refuges and waterfowl production areas. By regulation, up to 40% of an area acquired for a migratory bird sanctuary with MBCF monies may be opened to migratory bird hunting. It is anticipated that the Stone Lakes NWR lands would be acquired with Land and Water Conservation Fund (LWCF) monies; a public hunting program is not required on refuges acquired under the LWCF.

The analysis in the EIS assumes that 10% of the area acquired for the refuge would be open to hunting. This assumption is based on knowledge of the management plans of other potentially participating land management agencies and organization and the extent of natural habitats and restoration feasibility for lands in the study area. Please refer to the response to the previous comment.

Public Access

Comment: What is the justification for the 30% limitation on public access to the refuge? This figure represents an adequate amount of access for the general public, but additional access for private groups on a case-by-case basis would not adversely affect the refuge. The USFWS could limit such access to situations in which the private group secured approval from the refuge manager before entering the refuge.

Comment: Public access could be carefully channeled and controlled by use of an interpretive, self-guided trail featuring tree plantings like an arboretum and informational signs describing the plants and wildlife.

Response: The analysis in the EIS assumes that 30% of the area acquired for the refuge would be open to nonconsumptive recreation uses and fishing. This assumption is based on knowledge of the management plans of other potentially participating land management agencies and organizations and the extent of natural habitats and restoration feasibility for lands in the study area.

Public use of refuges is prohibited unless determined to be compatible with the purposes for which the refuge was established; areas to be managed for public use are generally identified through the refuge management planning process. Decisions regarding the opening of the proposed Stone Lakes NWR to public use would be made after establishment of the refuge boundary and land acquisition. Public use management programs will be planned and implemented so that such uses are compatible with the refuge purposes and objective.

The purpose of the draft EIS is to identify the potential impacts and benefits of land acquisition for a NWR; the draft EIS is not intended to identify all the potential impacts and benefits of various refuge management alternatives. Public use management alternatives will be evaluated after establishment of the refuge and land acquisition.

Comment: Public use of the refuge would be prohibited except for bird watchers and guided tours. This is unfair to the many residents, boaters, and recreationists who now enjoy the area.

Response: Please refer to the response to the major recreation issues in Chapter 3 of this document for a discussion of the effects of the project on existing boating and recreation uses. Refer to the response to the previous comment for a discussion of public use planning and management procedures.

Comment: We support fencing off the refuge.

Response: Comment noted. No response is necessary.

TRANSPORTATION

Franklin Air Field

Comment: The air field is a major training field for private aircraft. How will the FAA advisory requesting that aircraft maintain an altitude of 2,000 feet or more over a refuge affect existing training activities? How will high concentrations of waterfowl affect the flight patterns and operation of the field?

Response: Please refer to Chapter 5K, "Environmental Consequences: Traffic and Transportation Network" in the final EIS.

Traffic

Comment: The impacts associated with the increase in traffic as a result of the establishment of a refuge have not been addressed.

Comment: The levee road will not support the proposed 425 vehicles per hour.

Comment: The EIS should identify locations for public access points if such information is known at this time and evaluate the traffic impacts.

Response: The final EIS acknowledges that establishment of the refuge could result in a potential decreased level of service on two-lane roadways near the visitor center. The traffic impacts cannot be evaluated at this time because specific parcels have not been identified for acquisition, public use and access management plans have not been developed, and the proposed location and design of the visitor center has not been identified. The final EIS recommends that the potential traffic impacts be evaluated in a subsequent environmental analysis for the refuge visitor facility. Caltrans concurred with this recommendation in its comment letter on the draft EIS. Caltrans' comment letter is included in Chapter 4, "Responses to Agencies' Written Comments on the Draft EIS", of this document.

Comment: The Sacramento area needs a belt line to alleviate traffic problems. Will they be able to put more roads or highways through this refuge in as much as roads, freeways, developments, and other intrusions now exist?

Response: Future proposals to construct transportation projects in or adjacent to the Stone Lakes NWR would be evaluated through the environmental review process. The environmental evaluation would most likely involve preparation of a joint NEPA/CEQA document. CEQA requires state and local agencies to consider and disclose the environmental consequences of proposed projects and to avoid or reduce adverse environmental impacts of projects. Proposed transportation projects, such as roads and highways, would require approvals and permits from state and local agencies and environmental review to comply with CEQA.

LAW ENFORCEMENT, PUBLIC SAFETY, AND FIRE PROTECTION

Law Enforcement and Public Safety

Comment: The proposed refuge is near a large urban area known for vandalism and violent crimes. Who will patrol the area on a 24-hour basis? Who will pay for the increased services? Poaching should be addressed in the draft EIS. Who will clean up illegal dumping, especially if toxic waste is involved?

Comment: Is there a guarantee that landowners in and adjacent to the refuge will have the same level of police protection after establishment of the refuge? With the

increase in public pressure on the county roads, will the USFWS guarantee increased protection at USFWS expense?

Comment: Protective measures such as additional security personnel to ensure the safety of adjacent homes and landowners should be included.

Comment: The increased crime rate in the City of Sacramento, and particularly the city's south side, which is adjacent to the proposed refuge, could not be controlled by two officers as stated in the draft EIS. This has not been addressed fully and clearly in the draft EIS.

Comment: What kind of police protection would be provided for the proposed refuge? Who will supply the additional law enforcement and medical services that will be required because of the refuge?

Comment: Increased public use results in an increased demand for public safety services. The EIS should address the overall expected costs of these services for Walnut Grove, Courtland, Elk Grove, and Sacramento.

Comment: We are property owners in the area and if our property borders a refuge, we are afraid of vandalism.

Comment: The draft EIS does not adequately address issues related to police protection. This is of particular importance because of the proximity of the refuge to a major metropolitan area.

Comment: Active recreational uses on the refuge will adversely affect abutting landowners through increased vandalism and trespassing. Additional measures should be identified that will prevent and mitigate acts of vandalism and trespassing. These impacts should be referenced in the portion of the document that addresses recreation uses.

Response: It is the policy of the USFWS to enforce all rules and regulations under its jurisdictions, including trespass violations, and to protect the integrity of areas closed to public use. As noted in the responses to comments on public access, all refuge lands are closed to public use, unless specifically opened by regulation. The USFWS would not open any areas to public use without first completing management plans that would incorporate public concerns and be subject to public comment. It is anticipated that public use would be concentrated in the northwest part of the refuge near the visitor center; many of the outlying areas of the refuge would most likely be closed to public use. Therefore, trespass in the majority of the refuge would not be expected to increase after federal acquisition.

In areas of the refuge open to appropriate public uses, the USFWS is committed to providing the level of law enforcement effort necessary for the program to operate as planned. The USFWS would recommend concurrent jurisdiction on the proposed refuge where all county, state, and federal agencies have jurisdiction. USFWS law enforcement officers could act as backup personnel for officers of other agencies, and vice versa. The

USFWS typically establishes a relationship with the county sheriff's department; formal cooperative agreements could be established.

Fire Protection

Comment: Proximity to an urban population increases the chances of arson and the costs of fire protection.

Comment: Are the local fire districts going to be responsible for fires on refuge property? If so, will the USFWS guarantee the districts the funds needed to provide these services and supply the district with the equipment necessary to fight fires in a refuge?

Comment: Fire control in the refuge cannot be handled by the nearby volunteer fire departments.

Comment: What fire control would be available and who would make the recommendations?

Response: As noted in Chapter 3A, "Alternatives Including the Mitigated Preferred Alternative", of the final EIS, all refuge lands are closed to public use, unless specifically opened by regulation. The USFWS would not open any areas to public use without first completing management plans that would incorporate public concerns and be subject to public comment.

It is anticipated that public use would be concentrated in the northwest part of the refuge near the visitor center; many of the outlying areas of the refuge would most likely be closed to public use. Therefore, public use in the majority of the refuge would not be expected to be substantially greater than before federal acquisition. Consequently, the need for fire and emergency medical services is not expected to increase significantly.

The USFWS typically has firefighting equipment and certified firefighting personnel available on a NWR. Refuge managers also typically enter into contracts or cooperative fire agreements with local departments to provide services on refuge lands; local departments can be reimbursed for services. It is USFWS policy to encourage the use of contracts and cooperative agreements to provide fire suppression capability on NWRs. Fire protection and emergency services needs would be assessed in a fire management plan prepared after refuge establishment and land acquisition.

Chapter 5L, "Environmental Consequences: Economic and Fiscal Resources", in the final EIS identifies special districts that provide services to lands in the Stone Lakes study area (Table 5L-3); fire districts are included. This chapter also includes an evaluation of potential impacts on the funding available to the county and special districts as a result of federal acquisitions of private lands. The analysis concludes that the establishment of the NWR could result in beneficial impacts on revenues available to Sacramento County and

local districts if USFWS reimbursements under the Refuge Revenue Sharing Act occur at their historical average rate of 80% of the fully authorized amount.

Under the Mitigated Preferred Alternative, federal reimbursements would exceed current property tax revenues by an estimated 17%. This increment would be expected to increase over time as fair market values grow faster than the Proposition 13-restricted assessed values. Consequently, USFWS property acquisitions would have a beneficial fiscal impact on the county and on local special districts such as fire districts.

AGRICULTURAL RESOURCES

Conversion of Agricultural Land and Loss of Production

Comment: The draft EIS attempts to downplay very significant, adverse impacts on the vast amount of prime farmland in the study area, while suggesting that the "no project" alternative will somehow damage the environment.

Response: The draft EIS clearly identified the conversion of prime agricultural land as a significant, adverse, and unavoidable impact that would result from the implementation of Alternatives B, C, C1, D, and E. Direct agricultural land conversion impacts were not considered significant for the No-Project Alternative (Alternative A). Refer to Chapter 3, "Responses to Major Issues Raised in Public Comments on the Draft EIS", for additional discussion of farmland conversion issues.

Comment: The draft EIS characterizes the direct conversion of thousands of acres of prime agricultural lands and the loss of millions of dollars in production value from both direct and indirect impacts as only being "potentially significant".

Response: The draft EIS clearly states that the loss of prime agricultural land and the associated loss in production value is considered a significant, adverse, and unavoidable impact under Alternatives B, C, C1, D, and E. Indirect impacts, including the potential for seepage problems in certain areas, increased pesticide restrictions, increased crop predation, insect control problems, and trespass, were identified as adverse and potentially significant because of the speculation required to evaluate these impacts without site-specific project details. As defined on page 1-18 of the draft EIS, a "potentially significant" impact may result in a substantial adverse change in the environment, but specific information is not available to make a definitive determination. Under NEPA, designating an impact "potentially significant" results in the same legal considerations as designating the impact "significant".

Comment: The draft EIS did not address the issue of the loss of prime agricultural land and failed to account for the loss of production from orchards and vineyards and losses resulting from crop depredation.

Response: As previously discussed, the draft EIS evaluated the loss of prime agricultural land. This impact was reevaluated in the final EIS. Refer to additional discussion of this issue in Chapter 3, "Response to Major Issues Raised in Public Comments on the Draft EIS" of this appendix.

The analysis of agricultural impacts assumed that orchards and vineyards would not be purchased by the USFWS for restoration purposes. As stated on page 5J-10 of the draft EIS, "Lands planted to vineyards and orchards within the study area would not be acquired for restoration by the USFWS because of the cost and limited restoration potential of these lands (Jerome pers. comm.)". Crop depredation effects are evaluated in Chapter 5E, "Environmental Consequences: Wildlife, Vegetation, and Wetlands" and Chapter 5J, "Environmental Consequences: Agricultural Resources" of the final EIS. Table 5E-3 identifies vertebrate species with potential to create pest problems in the study area.

Comment: Any existing developed farms in the study area either should be allowed to operate or should be compensated for their loss. It would not be fair to cloud the titles of landholders in the region.

Response: Under the Mitigated Preferred Alternative incorporated into the final EIS, the USFWS would not use the power of eminent domain (i.e., condemnation) as long as existing or proposed agricultural land uses are consistent with the current 1982 county general plan and the September 1990 draft general plan update. Only willing sellers of agricultural land and easements, compensated at mutually agreed-on sales prices, and those willing to enter into cooperative agreements, would be included in the refuge. The USFWS is prepared to provide the necessary assurances to lending institutions on behalf of non-participating landowners regarding this self-imposed sanction.

Comment: I am concerned about the loss of farmland and damage to the economy of the area if the refuge project is implemented.

Response: These issues were addressed in the draft EIS and the final EIS in Chapters 5J and 5L.

Comment: For every dollar generated by on-farm production, at least \$6 is generated in the overall economy. This should be included in Table 4J-6 of the draft EIS with its own column named "Total Value to the Economy."

Response: Table 4J-6 of the draft EIS is designed to show the direct value of agricultural production in the study area. The indirect economic benefits associated with

agricultural production in the study area, including employment and income effects, are addressed in Chapter 5L of the draft EIS.

Comment: Page 5J-10 of the draft EIS should be changed to read, "easement programs would allow for continued, but restricted, agricultural production on most easement lands managed by the USFWS". The USFWS will decide what the cropping patterns will be.

Response: Conservation easements may not result in cropping restrictions in all cases. The final EIS has been revised to read, "easement programs would allow for continued, but possibly restricted, agricultural production on most easement lands managed by the USFWS".

Comment: It has been stated by Steve Vehrs, chief of the local USFWS Realty Branch, that vineyards, orchards, or dairies inside the acquisition boundary will be approached to be acquired. The production levels associated with orchard, vineyard, and dairy production could decline as a result of the direct conversion of agricultural land and other indirect problems within the study area.

Response: Based on the cost of purchasing lands with active orchard, vineyard, and dairy operations, and the limited wildlife habitat value that would be received by the USFWS through the acquisition of these properties, the agricultural impacts analysis assumed that lands used for orchards, vineyards, and dairies would not be acquired for restoration. Under the Mitigated Preferred Alternative, approximately 300 acres of vineyards, and no substantial acreages of orchards and dairies, are located within the Core Refuge Area boundary where acquisitions would occur (PU 10). It is unlikely that these lands would be purchased over the next 15 years because of the cost of purchasing vineyards with relatively young, productive vines; however, these lands may be purchased in the future if offered by the landowner at prices consistent with nonvineyard and nonorchard land prices. These purchases would occur only if a willing seller made the lands available to the USFWS. The assumption made in the draft and final EIS that orchard, vineyard, and dairy lands would not be purchased for restoration purposes is reasonable given the high cost and lack of habitat values associated with these lands. The indirect effects mentioned by the commenter were evaluated in the draft and final EIS and found to be adverse and potentially significant.

Comment: The assumption that orchard, vineyard, and dairy production would not decline as a result of the direct conversion of agricultural land within the study area is incorrect. This assumption allowed for project costs and the impacts on agricultural production and income to be downplayed. The impacts on agriculture must be reevaluated without this assumption.

Response: Please refer to the response to the previous comment.

Methods of Analysis

Comment: A better estimate of production per acre can be obtained from the Sacramento County Agricultural Stabilization and Conservation Service (ASCS) office for program crops such as corn, wheat, barley, rice, and sorghum. This could be done by getting yield information for all farms in the study area.

Response: The approach suggested in this comment was considered; however, because of the many farms in the study area and the need to use production estimates that reflect an average over many years, collecting yield information for individual farms through ASCS records was deemed to be inefficient and not likely to provide substantially different yield estimates from those provided by Sacramento County Department of Agriculture estimates.

Comment: In Table 4J-6 in the draft EIS, rangeland has a production value of \$10 per acre. One acre of rangeland will produce a certain number of beef cattle, increasing the \$10 value.

Response: Unit values for rangeland were based on a 10-year average of countywide rangeland values published by the Sacramento County Department of Agriculture. Production and associated production values for specific properties may deviate from the \$10 average.

Comment: A 1984 crop mix from DWR land use maps was used with 1990 vineyard data. Are these data considered current?

Response: The 1984 DWR land use maps represented the best available information on crop mixes in the study area at the time our analysis was conducted. Vineyard acreage was updated on the maps to reflect 1990 conditions. No other comments on the draft EIS suggested that crop acreages derived from the DWR maps for specific crops were in error or were not representative of typical conditions.

Comment: Because of the lack of specific management plans and land preservation plans for the refuge, a worst-case approach should be used to evaluate impacts to avoid conjecture.

Response: The scenario used to evaluate agricultural impacts is similar to a worst-case scenario. The amounts of acreage assumed to be purchased and restored to wildlife habitat were proportionally spread among all crop types (excluding vineyards, orchards, and dairies) and all soil types contained within an alternative's acquisition boundary to estimate impacts on agricultural production and prime farmlands. In practice, purchases of lands

supporting higher value crops may be less than proportional because of the cost required to obtain such lands.

In addition, the analysis contained in the final EIS has been revised to incorporate an estimate of land converted through conservation easements. The analysis in the draft EIS assumed that the purchase of conservation easements would not result in additional conversions of agricultural lands.

Farmland Protection Policy Act

Comment: The USFWS has a clear mandate under the Farmland Protection Policy Act to consider alternative sites that could lessen adverse impacts on agricultural lands.

Response: The USFWS has consulted with the U.S. Soil Conservation Service to ensure compliance with the Farmland Protection Policy Act. Full compliance with the act will occur before the ROD on the project is finalized. Information showing compliance with the act is not required to be included within an EIS (Kiger pers. comm.). However, a section describing the relationship of the project to the requirements of the act has been included in Chapter 2 of the final EIS.

Comment: CEQ, according to the Farmland Protection Policy Act, requires agencies in their EISs to include farmlands assessments designated to minimize adverse impacts on prime and unique farmlands. Was the Farmland Protection Policy Act considered in the draft EIS? Were alternative sites with fewer impacts on farmlands considered within the project boundary and other areas?

Response: An assessment of the project's impact on farmlands and recommended mitigation measures to minimize impacts were included in the draft EIS and final EIS. The USFWS has consulted with the SCS to ensure compliance with requirements of the Farmland Protection Policy Act.

Cumulative Impacts

Comment: A cumulative impact analysis for agricultural resources was not included in the draft EIS. The number of proposed wildlife enhancement projects, habitat conversion programs, water programs, and other land acquisitions will exacerbate the loss of prime agricultural lands and must be considered a significant cumulative impact. Adequate mitigation measures need to be identified, along with an implementation plan.

Response: The cumulative impacts of farmland conversion were evaluated and included in Chapter 6 of the final EIS, along with appropriate mitigation measures.

Indirect Agricultural Impacts

Comment: More study in the area of crop depredation, increased weed and pest pressure, agricultural productivity, and intensity of agriculture needs to be completed. The analysis in the draft EIS is deficient. The identification of meaningful mitigation measures and an action plan to implement them is needed.

Response: The draft EIS evaluated impacts related to the direct loss of agricultural productivity and the potential indirect problems related to crop depredation, increased pesticide restrictions, trespass and vandalism problems, water seepage, and weed and pest management (Chapters 5D, 5E, and 5J of the draft EIS). The indirect effects caused by these problems were identified as adverse and potentially significant. These issues were addressed at an appropriate level of detail, despite the difficulty in evaluating site-specific impacts without site-specific refuge management plans. These issues will be revisited in future NEPA documentation that will be required for site-specific refuge management plans. Mitigation measures developed for these impacts are programmatic and are designed to be flexible enough to apply to site-specific conditions. To ensure the success of these measures, certain measures require participation and review by state and local agencies before site-specific implementation. See Chapter 3, "Responses to Major Issues Raised in Public Comments on the Draft EIS", for more discussion of indirect agricultural impacts and mitigation measures.

Comment: The draft EIS notes the conflicts between refuge uses and pesticides and herbicides associated with existing agriculture on the affected lands. The draft EIS does not disclose how these conflicts will be resolved or whether traditional farming practices will be restricted on lands adjacent to the refuge.

Response: The draft EIS and final EIS provide mitigation for potential conflicts between refuge uses and pesticide use associated with existing agriculture on nearby lands (see mitigation measure 5J.2 on page 5J-58 of the draft EIS). As stated on page 5J-58 of the draft EIS, "Establishing adequate buffers at appropriate locations within the refuge would substantially reduce the potential for additional pesticide restrictions to be imposed on farmers near or adjacent to the proposed Stone Lakes NWR". This mitigation measure was developed through consultation with the Sacramento County Agricultural Commissioner, who is responsible for issuing pesticide permits to farmers in the project area. Additional information concerning this mitigation measure is provided in Chapter 3, "Response to Major Issues Raised in Public Comments on the Draft EIS".

Comment: The draft EIS states that refuge uses will cause rising water tables that may harm perennial crops, increase local humidity that may cause mildew and fungus problems, and encourage pests such as beavers and muskrats.

Response: Comment noted. The indirect impacts on agricultural resources referred to in the comment were addressed in the draft EIS and final EIS and were determined to

be adverse and potentially significant. Recommended mitigation measures are included in Chapter 5J.

Comment: Would farming practices on adjacent lands in RDs 744, 813, and 551 be modified or changed in any way as a result of the refuge?

Response: Adoption of the mitigation measures recommended in the final EIS would ensure that farming practices on nonparticipating lands would not be modified. These reclamation districts are not within the refuge boundaries for Alternatives B and C1. These districts are also excluded from both the NWR and CWMA boundaries under the Mitigated Preferred Alternative.

Comment: The only type of crop that would be affected from water seepage during the rainy season would be fruit trees. During this season, most other crops are not being grown.

Response: Wine grapes grown in the study area could suffer from root rot, salt stress, and other problems as a result of seepage onto adjacent agricultural lands.

Comment: Adverse effects of an expanded refuge acquisition plan, such as reduced agricultural income, restrictions on pesticide use, and potential increased trespassing on adjacent private property, are all inevitable in the intermediate term, given the expansion of population-driven development. Seepage impacts on agricultural production are a short-term concern and remain an uncertainty of the farming business. The concerns about beaver and muskrat damage to canals and increased insect damage to crops are reactionary and overblown.

Response: Comments noted. The indirect effects of refuge establishment on nearby agricultural operations were evaluated in the draft EIS and final EIS and found to be adverse and potentially significant.

Comment: Establishment of a refuge would result in even tighter restrictions on pesticide and insecticide use. It would soon be infeasible to farm because of all the restrictions that would be in place.

Response: This impact was evaluated in the draft EIS and final EIS and found to be adverse and potentially significant. Internal buffers are recommended as mitigation for this impact under Alternatives B, C1, C, D, and E. The USFWS policies incorporated in the project description under the Mitigated Preferred Alternative include the use of buffers to reduce the effects potentially caused by additional restrictions on pesticide use adjacent to restored habitats. Please refer to the discussion of buffers in Chapter 3, "Response to Major Issues Raised in Public Comments on the Draft EIS".

Comment: If a farmer is suffering offsite crop damage as a result of the refuge, how many hours would ensue from notification to elimination of the crop loss?

Response: Mitigation measures for indirect agricultural impacts are designed to reduce offsite damages to crops on adjacent lands. Should crop damage occur from increased depredation or seepage resulting from refuge operation, the farmer should notify the refuge manager as soon as possible and the refuge manager would work with the landowner to address his or her complaints. The amount of time required to eliminate any problem is difficult to estimate without knowledge of the specific problems alluded to in the comment. The USFWS is committed to working cooperatively with landowners adjacent to NWR lands in operating the refuge and would seek to address concerns raised by adjacent landowners in a timely fashion.

Comment: Black bean aphids should be included in the insect pests list on page 5J-5 of the draft EIS. Corn and tomatoes should be added to the list of crops that could suffer reduced yields because of increases in insect populations.

Response: Comment noted. These changes have been incorporated into the final EIS.

Comment: The assessment of "no impact farming", restrictions on pesticide use, wetland seepage, and animals, birds, and endangered species wandering on to surrounding communities and farmland was biased.

Response: These issues were addressed in the draft EIS and final EIS in an unbiased manner. The comment provided no detail concerning why the analysis was considered to be biased.

Comment: Will construction and operation of the refuge affect the production yields and increase costs of the farming operations within the boundaries of the refuge and adjacent to the refuge?

Response: Adoption of the mitigation measures recommended in the draft EIS and final EIS for indirect agricultural impacts would reduce these impacts to less-than-significant levels, implying that yields and production costs for adjacent farmers would not be affected by establishment and operation of the refuge.

Comment: Pesticide issues are not resolved as to the effects on adjacent landowners. Who absorbs the cost of higher operating expenses and crop losses if a farmer is affected by current laws imposed because of the refuge and endangered species?

Response: Mitigation measures were developed and included in the draft EIS and final EIS to mitigate for the potential effects on farming operations caused by increased restrictions on pesticide use and the attraction of endangered species to the refuge. Please refer to the discussions of buffers and endangered species issues in Chapter 3, "Responses to Major Issues Raised in Public Comments on the Draft EIS".

Comment: On page 6-31 of the draft EIS under "J. Agricultural Resources", no mention of the impacts of seepage; increased pesticide restrictions; pest management problems; and trespass, vandalism, and theft is made.

Response: These impacts are summarized on the following page (6-32) of the summary table in the draft EIS.

Comment: Surrounding farmland and farmland within the area that an owner may not choose to sell to the USFWS will be adversely affected by pesticide restrictions, potential water supply and distribution problems, intrusion of the public on private lands, and possible forced easements. The wildlife reserve may result in migration of protected species onto the neighboring lands, including farm, commercial, and industrial properties that will, in turn, bring added pressures to restrict current uses of those neighboring lands to protect the invading species. These limits could preclude the potential to grow sugar beets in some of this area.

Response: The issues addressed in the comment were evaluated in the draft EIS and final EIS and mitigation measures were recommended. Please refer to Chapter 3, "Responses to Major Issues Raised in Public Comments on the Draft EIS", for additional information on the issue of endangered species being attracted to the refuge area.

Comment: Farming practices could be altered or eliminated by a decree from the USFWS project manager without due consideration of the persons affected. This action could be done if the landowner was adjacent to the project.

Response: The USFWS has no direct authority to dictate activities on private lands. The county agricultural commissioner has the authority to restrict pesticide uses, and other agencies are responsible for enforcing existing laws and regulations. The mitigation recommended in the draft EIS and final EIS, which included established buffers, and incorporated into the Mitigated Preferred Alternative would greatly reduce the possibility that additional restrictions would be placed on farming activities by other agencies.

Comment: The USFWS should commit itself to protect farmers from any increased seepage due to the operation of the refuge.

Response: Mitigation measures to reduce potential impacts from seepage were included in the draft and final EIS and would be incorporated into the refuge design, if adopted. Please refer to the discussion of seepage issues in Chapter 3, "Response to Major Issues Raised in Public Comments on the Draft EIS".

Comment: There does not appear to be an adequate explanation in the draft EIS of the effect on existing farm practices of the establishment of a refuge and what the effect will be on adjacent and adjoining landowners. This must be addressed in a further EIS.

Response: An array of indirect agricultural impacts were qualitatively evaluated in the draft and final EIS, including seepage effects, problems related to increased pesticide restrictions, public access effects, predation effects, and increases in insect and weed pests. These issues will be further evaluated in subsequent NEPA documents prepared for specific refuge projects and management plans.

Aquaculture

Comment: As a representative of the major fish farmers in Sacramento County, we are unanimously opposed to a refuge in Sacramento County. The proposed refuge would not be compatible with fish farms. Fish farms have been hit hard in the last several years by predation by fish-eating birds. There are no provisions made in the draft EIS to accommodate fish-eating birds. The solution included in the draft EIS is to build a 500-foot-wide buffer around the refuge. In general, the draft EIS does not plan to safeguard the fish farmers of Sacramento County and surrounding areas from predation from birds attracted to the proposed refuge.

Response: The impacts of refuge establishment on aquaculture operations have been evaluated and included in the final EIS. The buffer recommended in the draft EIS and final EIS was not designed to mitigate impacts on aquaculture operations but was recommended to address impacts related to the potential for increased pesticide restrictions on farming operations near wildlife habitat areas established within the refuge. Buffers were also recommended to partially mitigate seepage effects.

Comment: Impacts on pesticide application restrictions due to the refuge seem to be overstated in the draft EIS. Pesticide application practices for Class I pesticides should not be affected for areas already adjacent to wetlands or waterways. Consequently, only areas that are restored or enhanced will have changes in pesticide applications on adjacent lands. The assumption that a change in pesticide application practices is a negative impact may be inaccurate when looking at the whole impact on the ecosystem.

Response: Comment noted. No response is necessary.

Comment: The draft EIS is deficient concerning seepage impacts on adjacent lands, crop depredation, and compatibility with intense agricultural uses such as vineyards, orchards, and tomatoes.

Response: These issues were evaluated in the draft EIS and mitigation measures were recommended, when appropriate. The comment provided no detail on why the analysis was deemed deficient.

Buffers

Comment: If the final preferred alternative is a 6,500-acre refuge north of Hood-Franklin Road with conservation easements throughout the balance of Sacramento County, the supplemental EIS must address in more detail a buffer policy that will allow all legal and historical farming operations to continue.

Response: Under the Mitigated Preferred Alternative, the NWR core area would extend south of Hood-Franklin Road; cooperative agreements would be sought, and conservation easements purchased, within the CWMA. Please refer to the discussion of buffers in Chapter 3, "Response to Major Issues Raised in Public Comments on the Draft EIS" of this appendix.

Comment: The draft EIS states that the buffers between wildlife habitat areas and farmland should range in width from 300 to 500 feet. Does the Sacramento County Agricultural Commissioner believe this is an adequate buffer?

Response: Buffer widths recommended in the draft EIS were developed after discussions with the Sacramento County Agricultural Commissioner. The commissioner felt that 300-foot-wide buffers would be adequate in most cases (Carl pers. comm.). Refer to the discussion of buffers in Chapter 3, "Responses to Major Issues Raised in Public Comments on the Draft EIS", for additional information on buffers.

Comment: The draft EIS does not include a specific buffer policy, and it does not explain possible negative impacts of a no-buffer policy on surrounding farms. Please determine and map an adequate buffer for each of the chemical materials that local farmers must use to produce high yields.

Response: Under the Mitigated Preferred Alternative, the USFWS has committed to establishing buffers on USFWS lands wherever wetland habitats are established next to agricultural lands. A specific map showing buffers cannot be created until specific parcels of land have been acquired and a refuge management plan has been prepared. The recommended buffer is flexible in width, and its size would be adjusted to account for the specific chemicals typically used on surrounding farms. Refer to the discussion of buffers in

Chapter 3, "Response to Major Issues Raised by Public Comments on the Draft EIS", for additional information on buffers.

Comment: The draft EIS indicates that a limited buffer will contain endangered species. If endangered species are attracted to the refuge, all surrounding landowners will be dramatically affected and farming activities will be curtailed.

Response: The buffers were recommended to curtail the possibility of increased restrictions on pesticide use on lands adjacent to wildlife habitat established on the refuge. The buffer recommendation was not intended to mitigate specifically for potential effects caused by endangered species. The issue of adverse effects on farming related to the attraction of endangered species is addressed in Chapter 3, "Response to Major Issues Raised in Public Comments on the Draft EIS".

Comment: We live in an area that would probably be considered a buffer zone for the refuge, and farming practices could be restricted to the point where farming would no longer be profitable.

Response: Buffers would be established on lands internal to the NWR and would not be located on nonparticipating private properties.

Comment: No realistic mitigation is provided for the potential incompatibility between pesticide use and a wildlife refuge. To say that a buffer will be provided without specific identification of where, when, how, and who would manage it does not serve as adequate mitigation and will result in potential conflict and problems that we may encounter in the future with the Sacramento County Agricultural Commissioner's Office.

Response: Additional details concerning the buffer mitigation measure have been included in Chapter 3, "Response to Major Issues Raised in Public Comments on the Draft EIS".

Comment: The USFWS should require adequate buffers to prevent reasonable adjacent urban and agricultural land uses from affecting the refuge.

Response: The criteria used to establish internal buffers between refuge wildlife habitats and farmlands would also be used to buffer the refuge from potentially incompatible urban uses, should such uses be found adjacent to planned restoration areas.

Comment: What happens to the land uses of property adjacent to the refuge as the buffer zones are established? Where are these proposed buffer zones to be? How large will they be? Are the agricultural uses of these buffer lands to be altered or regulated? If so, is that not the same as defacto expansion of the refuge area?

Response: Buffers would be located on USFWS properties and not on private farmlands. Please refer to the discussion of buffers in Chapter 3, "Responses to Major Issues Raised in Public Comments on the Draft EIS".

General Comments on Agricultural Resources

Comment: Grazing has been permitted on other refuges in the past. Would it be permitted at the proposed refuge?

Response: As shown in Table 3A-1 of the draft and final EIS, livestock grazing is an activity that may be permitted within the NWR. The compatibility of grazing with refuge objectives would be evaluated on a site-specific basis as refuge management plans are developed.

Comment: Will farming in the study area, where thousands of dollars of investments have been made on individual farms, be viable in the future, given the location of the refuge?

Response: Adoption of the mitigation measures recommended in the draft and final EIS would eliminate the indirect effects on agriculture detailed in the EIS and would maintain the viability of farming in the study area. Under the Mitigated Preferred Alternative, the direct conversion of productive agricultural land would be minimized.

Comment: How is the refuge going to affect high-intensity farming that surrounds the new refuge?

Response: Agricultural impacts resulting from refuge establishment, including indirect effects on nearby farming operation, were evaluated in the draft EIS and final EIS in Chapter 5J.

Comment: Because of the diversity of crops grown in the study area and the need to undertake fieldwork on a year-round basis, putting a refuge into this area will be far more difficult than putting one into an area where only rice or corn is grown.

Response: Comment noted. The diversity of crops and cultural practices in the study area has been considered in the evaluation of indirect impacts on agriculture. The impacts were identified as potentially significant impacts and mitigation was incorporated into the draft and final EIS.

Comment: I believe that the following issues were not adequately addressed in the draft EIS: the loss of farm production, the adequate provision of security both within and

adjacent to the boundaries of the refuge, and risk of water seepage onto adjacent farm lands and rising groundwater table.

Response: These effects were addressed in the draft EIS and final EIS and mitigation was recommended for all impacts other than the loss of agricultural production. The loss of agricultural production associated with the conversion of agricultural land was identified as an unavoidable, adverse impact of refuge establishment.

Comment: The USFWS has recently stated that it will not use condemnation powers to acquire land when land is used for agricultural purposes. A clear definition of agricultural uses is needed.

Response: Under the Mitigated Preferred Alternative, the USFWS would not use the power of eminent domain as long as existing or proposed agricultural land uses are consistent with the existing 1982 county general plan and the September 1990 draft general plan update. This policy would not apply to nonagricultural uses that may be permitted in agricultural land classes in the general plan (e.g., golf courses).

Comment: Where are the impact and facts about the ultimate demise of area farmers that have been in operation for generations? What studies show that other types of farm operations are preferable to the existing operations?

Response: Agricultural land conversion impacts were addressed in the draft EIS and reevaluated in the final EIS and were found to be significant because of the loss of a limited resource and the loss of production; however, there is no evidence to indicate that establishment of a refuge in the study area would result in the "demise of area farmers." Impacts on agricultural land and production would be reduced under the Mitigated Preferred Alternative relative to impacts under Alternative C1. No claim was made in the draft EIS that other types of farming operations are preferable to existing operations.

Comment: On page 3A-3 of draft EIS, alfalfa and irrigated pasture are identified as annual crops, which they are not.

Response: Comment noted. The final EIS has been corrected to reflect this comment.

Comment: In Table 4J-6 of the draft EIS, alfalfa hay is listed with pasture lands. This crop is more often grown on prime agricultural land as part of field crop rotation plans. This gross oversight needs to be corrected.

Response: Alfalfa hay is listed under the heading "Field Crops" in Table 4J-6. Alfalfa is normally considered a field crop, as is pasture. Including alfalfa in this listing of

field crops does not imply that alfalfa is not often grown on prime agricultural land. No correction of the EIS is required.

ECONOMIC AND FISCAL RESOURCES

Economic Impact Assessment

Comment: The economic impacts of the proposed project, including increased riskiness of agriculture investments, reduced access to credit, and devaluation of farmland, are inadequately analyzed in the draft EIS, and the mitigation measures proposed to reduce these impacts are inadequate to reduce them to less-than-significant levels.

Response: The economic impacts identified through the scoping process were analyzed using the most recent and accurate data available and applicable to the proposed project and methods widely accepted by professional economists as appropriate for federal projects such as wildlife refuge establishments. The site specificity of the economic analysis was limited by the programmatic nature of the proposed project (i.e., by the absence of information regarding the precise amounts and locations of lands that would participate in the refuge in various ways, and the ways in which such lands would be managed). USFWS staff believes the measures proposed to mitigate the economic impacts identified in the draft EIS as adverse and significant would reduce these impacts to less-than-significant levels.

Comment: Crops are frequently rotated on many study area farmlands. The distribution of crop types as analyzed in the draft EIS assumes that the distribution of crops is permanent. This assumption is inappropriate and results in errors in the estimation of displaced crop production value.

Response: The distribution of crop types on study area farmlands varies substantially from year to year because of crop rotation. Estimates of cropping areas used in the draft EIS were based on crop maps made in 1984 by DWR, updated to account for recent installations of vineyards. From a site-specific perspective, the DWR maps are accurate only for 1984; if mapped in a subsequent year, crop locations would be substantially different because of crop rotations. The distribution of cropping *areas*, however, is relatively stable. For example, the annual acreage within the study area that is shifted from row crops to fallow land is roughly equal to the acreage of fallow land shifted to row crops. According to the Sacramento County agriculture commissioner, the total area in each crop type within the study area has remained relatively constant since 1984, except for vineyard installations. This stability implies that using a crop map representing a specific year (e.g., 1984) would result in an unbiased estimate of the distribution of farmlands by cropping areas.

Comment: Instead of using economic data for several years during the 1980s, the economic analysis should have used data for a single year.

Response: Data used in the economic and fiscal impact analyses were taken from several different sources published in various years that contained information referring to several different years. In some cases (e.g., for economic multipliers), data were available for only 1 historic year. In cases where comparable data were available for more than one year, the most recent data available were generally used. Limits on the availability of data and the objective of using current data wherever possible resulted in the use of data for several recent years. USFWS use of data covering several different years is not believed to have resulted in significant assessment errors.

Property Value and Compensation for Acquisition

Comment: The draft EIS does not consider the impact of the proposed refuge on local property values.

Response: As described in Chapter 5L, "Environmental Consequences: Economic and Fiscal Resources" on page 5L-12 and 5L-13 of the draft EIS, the potential for private property to be acquired through condemnation could reduce the relative viability of long-term agriculture investments, which could depress the value of property within the refuge boundary relative to property outside the boundary. This impact was considered potentially significant for several alternatives in the draft EIS and final EIS.

Mitigation measure 5L.4, "Avoid Acquiring Land by Condemnation", in the final EIS was recommended to avoid adverse impacts on property values and access to farm loans. As part of the Mitigated Preferred Alternative, USFWS has proposed to waive its power of eminent domain to acquire any property that is actively managed for agriculture.

Comment: Refuge establishment would increase property values in adjacent residential neighborhoods.

Response: Nearly all residential developments located or planned adjacent to the proposed refuge (e.g., Laguna Village) are adjacent to areas that have been or will be converted to wildlife reserves and open space uses independent of Stone Lakes NWR (e.g., the Buffer Lands or North Stone Lake Wildlife Refuge). Any increase in residential property values in these neighborhoods resulting from their proximity to refuge amenities would probably be attributable more to these non-federal reserves than to Stone Lakes NWR.

Comment: If a landowner who declines to sell property when first approached by USFWS subsequently installs agriculture improvements (e.g., vineyards), the landowner may not be compensated for such improvements if the landowner eventually sells the land to USFWS.

Response: Willing sellers would presumably require fair compensation for land improvements, or else they would not be willing to sell at the agreed-on price. In the unlikely event that a farm parcel is acquired from an unwilling seller by condemnation, the court is required to establish a selling price reflecting the property's fair market value. This value includes the value of the undeveloped land plus all improvements. In either case, any prior negotiations between sellers and USFWS would have no bearing on compensation for any improvements existing at the time the property is sold.

Comment: The 3-year study of the effect of the refuge on property values proposed as part of mitigation measure 5L.1 would not protect landowners forced to sell before the study was completed.

Response: Mitigation measure 5L.2, "Analyze Impacts of Refuge Boundary Delineation on Real Estate Values", has been added to the final EIS to ensure that USFWS would not initiate any condemnation proceedings until the proposed 3-year study is completed and its findings have been incorporated into its acquisition policy for Stone Lakes NWR.

Comment: The payback period for investments in vineyard establishment is stated to be 4 years in the draft EIS. The minimum payback period for new vineyards is actually 8 years.

Response: The draft EIS states on page 5L-12 that the payback period for vineyard establishment is *at least* 4 years. Additional research confirmed the commenter's estimate; the text of the EIS has been revised accordingly.

Special District Revenues

Comment: Congress is likely to occasionally underfund reimbursements to Sacramento County. Underfunding could affect the ability of reclamation districts to maintain levees.

Response: On average, federal reimbursements to Sacramento County for lands acquired for the refuge are expected to provide more revenue to local special districts than such lands currently generate in property taxes. The amount by which federal reimbursements to the county exceed property tax revenues would increase over time, assuming fair market values increase faster than 2% per year, the maximum rate at which property tax revenues can increase under Proposition 13. Although payments to special districts could be more variable if a federal refuge were established than they have been historically, the payments should increase on average. Refuge establishment should thus increase the ability of local special districts to maintain their levees and other capital improvements.

Comment: State and county governments should contribute funds to help finance reclamation districts that would be adversely affected by acquisitions of private property for the federal refuge.

Response: State and county governments lack the statutory authority to generate additional revenues to supplement special districts' revenues when the property tax base is diminished by federal land acquisitions.

Comment: RD 551 should be included among the special districts that could be substantially affected under Alternatives D and E by removal of private lands from the tax base.

Response: The analysis in the final EIS indicates that revenues to the county from acquired lands would increase over time if USFWS reimbursements are at their historic average level of 80% of the authorized level. Consequently, refuge acquisitions would have a beneficial effect on Sacramento County and local special district. However, the commenter is correct that RD 551 is located almost entirely within the proposed refuge boundaries under Alternatives D and E and therefore could be substantially affected if Congress fails to provide adequate reimbursement funding.

Other Fiscal Impacts

Comment: The draft EIS does not address the increased costs to local public health departments associated with increased incidence of mosquitoborne diseases such as malaria and encephalitis resulting from refuge establishment.

Response: The proposed refuge would not result in increased mosquito populations or in increased rates of mosquitoborne diseases. This issue is evaluated in two new chapters included in the final EIS: Chapter 4M, "Affected Environment: Mosquitos and Public Health", and Chapter 5M, "Environmental Consequences: Mosquitos and Public Health". Consequently, refuge establishment would not increase the costs of administering local public health departments.

Comment: The draft EIS does not consider the fiscal impact of refuge establishment on federal taxpayers.

Response: Costs of refuge land acquisitions were estimated and included in Table 6-4 and Appendix D in the draft EIS; this information is presented in the Summary and Appendix H to the final EIS. Refuge acquisitions are funded by special congressional appropriations that have been determined by Congress and the president to be in the public interest. Funding land acquisitions for the proposed refuge would have a negligible effect on the average citizen's federal tax liability.

Comment: The draft EIS does not consider the fiscal impacts of increased welfare and unemployment compensation costs resulting from the displacement of agricultural jobs by the proposed project.

Response: Under all alternatives considered, the proposed project would result in net increases in employment and income. Nonetheless, job losses in agriculture could temporarily increase the number of unemployed workers and the number of welfare recipients in Sacramento County. Such increases are expected to be extremely small relative to the county's total unemployment and welfare caseloads. For example, the maximum USFWS acquisition alternative (Alternative E) is projected to displace approximately 68 agriculture jobs and 130 total jobs in the county. In 1990, the average number of unemployed workers in Sacramento County was 24,500. If all 130 workers displaced under Alternative E remained unemployed, the county's unemployment rate would increase by 0.02 percentage points (from 4.70% to 4.72%). The project's effects on the county's welfare caseload would be similarly negligible.

Comment: The draft EIS does not consider the fiscal impacts of conservation easements and cooperative agreements that would reduce the agricultural productivity of affected lands.

Response: Farm properties are normally reassessed by Sacramento County only if they are sold or if major improvements are undertaken. Sales of conservation easements by landowners to USFWS normally would not result in reassessments. Furthermore, in the event that parcels were reassessed following sales of conservation easements, such easements would be unlikely to result in production changes that would affect property taxes.

Agriculture Displacement

Comment: Economic multipliers used in the draft EIS are based on outdated 1976 data that do not reflect recent increases in crop values.

Response: Economic multipliers used in the draft EIS are the most up-to-date multipliers available from the University of California Cooperative Extension. They reflect two distinct types of economic relationships subject to changes which, over a period of several years, could result in estimation errors in assessing economic impacts. These changes are variations in the amount of each input required to produce a unit of a specified output and variations in the prices of inputs and outputs.

Since 1976, prices of agricultural inputs and outputs have increased substantially. Increasing prices imply that each \$1 million of current farm production value accounts for fewer farm jobs than was assumed in the draft EIS as shown in Table 5L-6. Price changes since 1976 were accounted for in the final EIS by dividing the number of person-years of employment per million dollars of output value by 1.56, the proportionate increase in the producer price index between 1976 and 1989.

Technological improvements resulting in changes in the amounts of inputs required per unit of crop production have been relatively small since 1976. Such technological changes are unlikely to be a significant source of error regarding estimates of job and income losses resulting from agriculture displacement. On average, however, technological improvements have reduced the number of person-years of employment required per unit of crop production. This reduction means that using 1976 technological relationships would tend to overestimate employment losses resulting from agriculture displacement.

Comment: Proprietors of farms and other businesses displaced by refuge acquisitions would be eligible for federal compensation for expenses related to relocating their businesses.

Response: The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 requires the federal government to compensate proprietors of businesses displaced by federal land acquisitions for expenses directly related to relocating their businesses. Relocation expenses are normally fully compensated for relocations within 50 miles of the former business site, but may not compensate all expenses for moves of more than 50 miles. By encouraging proprietors to relocate within 50 miles, this provision reduces the disruptive effects of federal land acquisitions on local and regional economies.

Comment: Job formation in government or recreation services would not constitute compensation for agriculture jobs displaced by refuge establishment. The people who would become unemployed because of the refuge are not the same people who would become employed because of the refuge.

Response: In general, economic impacts may be considered significant if they have even a relatively small effect on a relatively large group of people, or if they have a relatively large effect on a relatively small group of people. This approach ensures that if a proposed project would have a particularly adverse effect on a narrow segment of society, the effect will be disclosed and mitigated in conformance with NEPA.

In the draft EIS, job loss resulting from refuge establishment was considered to be a significant impact if it represented a substantial decrease in overall employment in Sacramento County or in any individual industry within the county, such as agriculture. None of the alternatives analyzed would result in displacement of more than 5% of the county's agriculture workforce and were thus found to be less than significant.

The discussion of major issue "Indirect Economic Impacts of Agriculture Displacement" in Chapter 3, "Responses to Major Issues Raised in Public Comments on the Draft EIS", considers the possibility of the refuge adversely affecting an even narrower segment of society (i.e., people employed in agriculture and agriculture-related services in the local vicinity of the proposed refuge).

Comment: Although agriculture-related jobs may be lower paying on average than federal refuge management jobs, workers in the agriculture sector whose jobs could be displaced by federal land acquisition deserve equal consideration relative to potential refuge employees.

Response: The economic impacts of job displacement were analyzed in the draft EIS in terms of changes in employment and personal income. Personal income is measured in dollars and hence takes into account the average level of compensation received in affected industries and job classifications. In contrast, employment is measured in person-years and does not consider average compensation. In terms of employment impacts, the loss (or gain) of one low-paying job is equivalent to the loss (or gain) of one high-paying job. In this sense, agriculture and refuge management jobs received equal consideration in the draft EIS.

Increased Economic Activity in the Recreation and Government Services Industries

Comment: The draft EIS understates the positive effects on employment and income in the recreation and government services industries that would result from refuge establishment.

Response: Job formation and income enhancement resulting from refuge establishment were estimated based on anticipated refuge staffing and visitation. The accuracy of the projected economic impacts resulting from recreation-related expenditures is unavoidably limited by uncertainty regarding the number of people who would visit Stone Lakes NWR. The visitation projections reported in the draft EIS were based on visitation to other California refuges. Although they are rough estimates, the visitation projections are believed by USFWS to provide a reasonable basis for refuge acquisition planning.

**Appendix B. Scoping Report for the Proposed Stone
Lakes National Wildlife Refuge Project**

B-1

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B-2

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C-057215

THE SCOPING PROCESS

This report is an analysis and summary of the scoping and public involvement process used by the U.S. Fish and Wildlife Service (USFWS) to identify significant issues related to the proposed Stone Lakes National Wildlife Refuge (NWR) project.

Purpose of and Need for Scoping

The Council on Environmental Quality's environmental impact statement (EIS) regulations (40 CFR 1501.7) require "an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action". The intent of the Stone Lakes NWR project scoping process was to identify the significant issues for study in the EIS and determine the scope of analysis for each issue.

Scoping is designed to explore issues for environmental assessment, to ensure that important considerations are not overlooked, and to uncover concerns that might otherwise be unrecognized. The issues contribute to the formulation of alternatives and to an understanding of the consequences of implementing any one of the alternatives.

Through scoping, the USFWS intends to make the EIS as informative as possible for decision makers and those affected by the proposed project alternatives.

Sources of Scoping Information

The USFWS initiated the preparation of an environmental assessment (EA) to explore the feasibility of establishing the Stone Lakes NWR in March 1990. An interagency policy group was established to assist the USFWS in planning for the proposed refuge. The members of the interagency policy group are:

Gene Andal, Sacramento County Parks and Recreation Department
Jim Dixon, Sacramento County Department of Public Works, Division of Water Resources
Don Dodge, City of Sacramento Department of Public Works
John Doebel, U.S. Fish and Wildlife Service
Ed Hasty, U.S. Bureau of Land Management
Fred Kindel, U.S. Army Corps of Engineers
Mike McCollum, California Department of Fish and Game
Jim McDaniel, California Department of Water Resources
Roy Nelson, Sacramento Regional County Sanitation District
Lon Spharler, California Department of Parks and Recreation

Dwight Sanders, California State Lands Commission
John Schmidt, California State Wildlife Conservation Board
Bob Thomas, City of Sacramento Department of Parks and Community Services
Eric Loretz, rancher representing Reclamation District 1002
Christopher Lee, attorney representing agricultural interests (vineyards)
and Reclamation Districts 813 and 551
Tom McCormack, Diversified Agriculture, representing Reclamation District 1002
and the McCormack-Williamson Tract

In June 1990, representatives from various interested groups organized a steering committee to provide recommendations and information to the USFWS on the proposed refuge and alternatives. Alternative D, the Cooperative Acquisition Alternative, was developed by the steering committee. Over the course of several meetings, the steering committee membership proved to be dynamic; the original members of the committee are:

John Anderson, Sacramento County Parks Commission
Bob Bell, Hefner, Stark & Marois
Stephanie Benedict, Stone Lakes Alliance
Harvey Collins, horse stable owner, Beach Lakes area
Fred Denier, dairy farmer, Cosumnes River area
John Graber, Sacramento County Farm Bureau
Jane Hagedorn, Planning and Conservation League
Tom Herzog, vineyard owner, Reclamation District 813
John McKenzie, wildlife public relations consultant
Glenn Olson, National Audubon Society
Marcus Lo Duca, Chamber of Commerce
Cynthia Patten, Chamber of Commerce
La Rue Schock, landowner, South Stone Lakes area
Richard Spotts, Defenders of Wildlife
Audrey Tsuruda, Camray Development and Construction Company
Chris Unkel, The Nature Conservancy
Rob von der Lieth, Cattlemen's Association
Galen Whitney, farmer (row and grain crops), South Stone Lakes area

Ex-Officio Members

Mike Alkalay, office of Assemblyman Phillip Isenberg
Richard Harris, Office of Congressman Vic Fazio
Cindy Kettman, Office of Congressman Robert Matsui

USFWS conducted public workshops in the City of Galt on April 4, 1990, and in the City of Sacramento on April 10, 1990, to identify a preliminary list of issues and concerns for consideration in the EA. At these workshops, individuals participated in small groups with common interests to identify a comprehensive list of issues through brainstorming techniques.

As a result of scoping for the EA, the USFWS determined that the preparation of an EIS was required. The USFWS published a notice of intent (NOI) to prepare an EIS in October 1990. A copy of the NOI is included as Figure A-1. Open house scoping meetings were conducted in the City of Sacramento on October 29, 1990, and the community of Walnut Grove on October 30, 1990. The scoping comment period closed on November 15, 1990.

Throughout the scoping process, USFWS personnel worked closely with other agencies, groups, and individuals to give them a better understanding of the refuge planning and environmental review process. In addition, Jones & Stokes Associates staff members interviewed agricultural operators in the study area to better define agricultural issues. Table A-1 lists agencies, groups, and individuals consulted during scoping.

SCOPING ISSUES

Issues and Concerns Identified in Environmental Assessment Scoping Workshops

Table A-2 summarizes the issues and concerns identified by work groups in the EA scoping workshops conducted in April 1990. The list does not represent work group consensus, but rather represents the collected views of individual participants.

Issues and Concerns Identified in Written Environmental Impact Statement Scoping Comment Letters

This appendix summarizes all of the issues and concerns identified in written comment letters received during the EIS scoping period. The issues and concerns are grouped into categories to summarize the scoping comments.

Scoping Commenters

The following agencies, companies, organizations, and individuals provided written comments during the scoping process for the EIS.

**FIGURE A-1. NOTICE OF INTENT TO PREPARE
THE STONE LAKES EIS**

USFWS BILLING CODE: 4310-55

DEPARTMENT OF THE INTERIOR

U.S. Fish and Wildlife Service

Notice of Intent to Prepare an Environmental Impact Statement for the establishment of a National Wildlife Refuge and protection of wetlands in south Sacramento County, California.

AGENCY: U.S. Department of the Interior, Fish and Wildlife Service

ACTION: Notice of intent and scoping period

SUMMARY: This notice advises the public that the U.S. Fish and Wildlife Service (Service) intends to gather information necessary for the preparation of an environmental impact statement (EIS) to explore the feasibility of establishing a National Wildlife Refuge and protection of wetlands on or near Stone Lakes in south Sacramento County, California. Comments received from all parties during an earlier environmental assessment scoping process will be incorporated into the scope and content of this EIS. Additional opportunities for public involvement will further define the scope of this EIS. This notice is being furnished pursuant to the National Environmental Policy Act (NEPA) regulations (40 CFR 1501.7) to obtain suggestions and information from other agencies and the public on the scope of issues to be addressed in the EIS.

SCOPING INFORMATION: Persons wishing to participate in the scoping process are encouraged to contact the U.S. Fish and Wildlife Service, Sacramento Realty

Field Office as soon as possible. Interested agencies, organizations, and individuals are encouraged to participate in the public program for this project in order to identify and discuss major issues, concerns, and opportunities that should be addressed in the EIS. Written comments will also be accepted.

FOR FURTHER INFORMATION CONTACT: Mr. Peter J. Jerome, Refuge Manager, U.S. Fish and Wildlife Service, 2233 Watt Avenue, Suite 375, Sacramento, California 95825-0509, Telephone: 916-978-4420.

WRITTEN COMMENTS INFORMATION: Written comments should be received by November 15, 1990.

SUPPLEMENTARY INFORMATION: The preparation of an environmental assessment document to explore the feasibility of establishing a national wildlife refuge in south Sacramento County was initiated in March 1990. As a result of the scoping process, the Service has determined that the preparation of an Environmental Impact Statement is appropriate. Consistent with Departmental guidelines, the Service determined that the proposed project may result in potentially significant environmental effects related to the conversion of agricultural lands to wetlands.

Public workshops and meetings with local, state, and federal agencies have been conducted. The scope and content of these meetings, including existing issues and concerns documents, will be incorporated into the subsequent EIS scoping process. In addition, a range of preliminary alternatives that

describe various acquisition objectives will provide the basis for environmental impact assessment.

BACKGROUND: The Central Valley of California encompasses an area of over 13 million acres which included an estimated four million acres of wetlands in the 1850's. Today, estimates of remaining wetlands in California's Central Valley have ranged from slightly less than 400,000 acres to 280,000 acres. The loss of wetlands coupled with declining waterfowl populations and other wetlands dependent species nationwide has resulted in management concerns at the local, state, and federal levels.

Since 1988, there has been heightened public interest in the protection of riparian areas in the Stone Lakes area. Separate Congressional and State Legislative appropriations resulted in widespread public support for the establishment of a National Wildlife Refuge. Other public and non-profit land managers have initiated wetland protection programs with the establishment of the Consumnes Preserve to the south of Stone Lakes.

The Stone Lakes area represents remnants of a variety of native plant communities such as willow, cottonwood, and oak riparian forests. Seasonally flooded wetlands and vernal pools occur throughout the study area. The area provides an important component of the Pacific Flyway and provides wintering, nesting, and feeding habitat for 23 species of waterfowl. In addition, the area provides habitat for several species of flora and fauna that are candidates for the endangered species list.

The purpose and need for the establishment of Stones Lakes National Wildlife Refuge is supported by the wildlife and habitat values that characterize the area. The location of Stone Lakes to urban populations and development create opportunities for environmental education and interpretation but threaten the future availability of the habitat.

Dated: _____

Regional Director

Table A-1. Agencies, Groups, and Individuals Consulted during Scoping for the Stone Lakes NWR Project

Agencies

- California Department of Fish and Game (Mike McCollom)
- California Department of Parks and Recreation (Dan Blankenship, Susan Ross, and Lon Spharler)
- California Department of Water Resources (Jim McDaniel)
- California State Lands Commission (Jim Trout and Dwight Sanders)
- California Wildlife Conservation Board (Jim Saro)
- City of Sacramento Department of Public Works (Don Dodge)
- Lower Cosumnes Soil Conservation District
- Sacramento County Board of Supervisors (Toby Johnson, Jim Streng, Illa Collins, Sandra Smoley, and Grantland Johnson)
- Sacramento County Department of Parks and Recreation (Gene Andal, Director and Bob Thomas)
- Sacramento County Department of Public Works, Division of Water Resources (Jim Dixon)
- Sacramento County Parks and Recreation Commission
- Sacramento Regional County Sanitation District (Roy Nelson, Buffer Lands Manager, and Bob Shanks)
- Stone Lakes Interagency Policy Group
- U.S. Bureau of Land Management (Ed Hasty)

Groups

- Building Industries Association (Skip Schmidt)
- California Audubon Society (Glen Olsen)
- Lodi Duck Club (Bennet, Altnow)
- Stone Lakes Alliance
- Stone Lakes Environmental District (Walter Hoppe, Richard Samra, La Rue Schock, Galen Whitney)
- Stone Lakes Steering Committee
- Hefner, Stark & Marois (Tim Taron)
- Trust for Public Lands (Nancy Schaeffer)
- Yolo Bypass Working Group
- Walnut Grove Rotary Club

Individuals

- Robert Abercrombie
 - John Baranek (The Herzog Company)
 - Fred Denier (Cal-Denier Dairy)
 - Richard Harris
 - Alison Harvey
 - Walt Hoppe
 - Betty Kuhn
 - Christopher Lee
 - Eric Loretz
 - Tom McCormack
 - Peter Saunders
 - Mark Scribner
 - Clay Shannon (Sutter Home Vineyards)
 - Sandy Stewart
 - Russ van Loben Sels
-

Table A-2. Issues and Concerns Identified in the
Environmental Assessment Scoping Workshops

Agricultural Interests and Concerns

- The USFWS should follow an acquisition policy of buying land from "willing sellers" only.
- The USFWS should not use "eminent domain" to acquire lands for Stone Lakes NWR.
- Federal acquisition may result in a loss of tax revenues that will severely restrict revenues to reclamation districts, and payments in lieu of taxes will not be adequate to make up the difference.
- The establishment of a wildlife refuge will inevitably result in the formation of coalitions that will not be receptive to agricultural practices and will inevitably override agricultural interests.
- The establishment of a wildlife refuge could result in limitations on current agricultural practices, such as spraying, burning, and wildlife hazing devices.
- Public access to refuge land may adversely affect farmer operations by imposing spraying limits, encouraging vandalism to pumps and other equipment, and destroying portions of crops.
- The appraisal process will not reflect what farmers think land is worth or keep pace with rapid increases in values.
- The appraisal process will not adequately reflect what farmers could receive on the open market or the income-producing ability of the property.
- The establishment of a wildlife refuge would result in depreciation of values on surrounding lands.
- The establishment of a wildlife refuge would result in increased public use, thereby encouraging trespass on adjacent private lands.
- Public access to refuge land may increase liability exposure to landowners.
- The importance of farmland value for production will not be adequately taken into account when developing wildlife protection plans.
- Restrictive zoning by county could limit landowner options.
- Who would be responsible for maintaining common use irrigation and drainage systems?
- The establishment of a wildlife refuge may result in animal damage to flood control and irrigation structures from beaver and muskrat activity.
- The establishment of a wildlife refuge may result in increased competition with farmers for groundwater for wildlife use.
- Pumping groundwater for wetlands creation or management activities may accelerate the drop in groundwater level and increase farmer pumping expenses.
- Wildlife refuge design and management should take into consideration the need to maintain flood control restrictions and should not interfere with ongoing flood control management, particularly the reconstruction of the Lambert Road flood control structure, the increase in pumping capability of Pump 90, and the clearing and widening of the borrow pit channel.
- The establishment of a wildlife refuge should take into consideration the need to maintain mosquito control.
- Under the conservation easement program, farmers should be compensated for the loss of farm income on an ongoing basis.
- Farmers would lose some of their management flexibility under the conservation easement program.
- The USFWS should consider opportunities to permit grazing within the refuge where it is considered to be compatible with wildlife values.
- Federal, state, and local agencies will determine that grazing is incompatible with wildlife management.
- Wetlands may not be on lands that are most suitable but will occur on farmland.

Table A-2. Continued

Development Interests and Concerns

- The establishment of a wildlife refuge would result in reduced costs to taxpayers by maintaining floodplain areas in open space and alleviating development liabilities related to flooding and pollution.
- The USFWS should work with farmers to provide positive incentives for wetland protection.
- Landowners in the path of development should be allowed to sell to whomever they want at the highest value they can get at anytime they choose.
- Planners for the refuge should respect established development areas and allow for continued development, both residential and commercial.
- The establishment of a wildlife refuge should not cause ecological restrictions to be imposed on adjacent lands.
- The refuge boundary should encompass those lands between Interstate 5 on the east, the Sacramento River on the west, and the Cosumnes River on the south.
- Plan, design, and manage the wildlife refuge to minimize mosquito abatement problems by considering surveillance and control methods early in the planning process.
- Consider the Stone Lakes NWR area as a mitigation bank area.
- Consider resource values in the appraisal process.
- The federal and county government may use eminent domain to acquire lands for the wildlife refuge.
- The federal and county government should not use condemnation (eminent domain) sales.
- The establishment of a wildlife refuge may devalue adjacent property.

Public Use and Recreational Interests and Concerns

- The establishment of a wildlife refuge would be compatible with the long-term plans of Sacramento County's Project 2000, which calls for the establishment of:
 - interpretive center and volunteer program in south county;
 - recreational outreach to schools (similar to Effie Yeaw Nature Center); and
 - critical resource interpretation.
- The USFWS should coordinate with California Department of Parks and Recreation's plans for an excursion train and steamboat route from Old Sacramento to locations south. The train and steamboat could provide an opportunity for interpretation of historic and natural values.
- Proper location and management of duck hunting activities should be considered. Hunting is currently not allowed on county lands and should be eliminated on refuge lands because of proximity to urban areas and to relieve stress on wildlife populations.
- Public access to Snodgrass Slough (put-in and take-out) for nonmotorized boating should be considered.
- The USFWS should consider the extent to which the public has access to refuge lands retained in private ownership (conservation easements).
- A visitor center like Effie Yeaw Nature Center should be constructed in some corner of the refuge.
- Interpretive trails should be provided but may be closed during critical wildlife periods, such as breeding and nesting seasons.
- Opportunities and constraints related to providing equestrian and bicycle trails should be considered.
- Bicycle and equestrian use should be located on designated trails away from water areas.
- The USFWS should consider allowing passive recreation opportunities (e.g., photography, bird watching).
- The USFWS and the county should explore the feasibility of concurrent law enforcement jurisdiction.

Table A-2. Continued

- Rangers and other law enforcement personnel will be necessary to patrol area.
- Public fishing access should be identified and provided.
- The USFWS should minimize conflicts between recreational activities such as hunting and other non-consumptive uses.
- The need for handicapped access when providing public use opportunities should be considered.
- Overflights by aircraft may need to be restricted to minimize harassment to wildlife.
- The following guidelines should be considered when determining the compatibility of special events:
 - encourage individual, family, and school groups but discourage large group activities;
 - special events to raise money;
 - consider the impacts on wildlife;
 - "nonevent" (passive) fundraisers should be considered; and
 - wildlife comes first - human special events last.
- Time and space requirements of public use activities (seasonal openings and closings) should be considered when developing management plans.
- Wildlife refuges should protect wildlife as much as possible - use "transition zones" to provide opportunities for people to learn about wildlife values.
- Sensitive wildlife areas should be closed to public use.
- Swimming should be discouraged or forbidden.
- Refuse removal is a problem that needs to be addressed if public use activities are permitted.
- Access should be limited at various control points, such as landings, trails, boardwalks, and visitor centers, for all user groups.
- Hours should be limited so as not to permit overnight use.
- Wildlife refuges are not managed like parks.
- Public uses and access should be considered that are compatible with wildlife resources.
- Parkways are examples of mixed-use management areas.
- Use waterways as nondestructive pathways for visitors.
- Make people aware of the purposes of wildlife refuges.
- Because of proximity to urban areas, the USFWS should take advantage of public access opportunities.
- If the entire area is closed to public access, it will be difficult to get public support for the refuge.
- Refuge programs should integrate wildlife values into a public education program.
- Wildlife comes first on a wildlife refuge.
- Wildlife populations are already stressed because of urbanization in the area.
- Offroad and motorized vehicles use should not be permitted on a wildlife refuge.
- Low-impact public uses should be considered.
- Occurrence of endangered species may necessitate restricting public access.
- Are user fees appropriate for public use on a wildlife refuge? Funding for maintenance and operations may limit access to those who can afford to pay. User fees need to be fair.

Refuge Boundary Interests and Concerns

- Significant wildlife values may not be present east of Interstate 5.
- Refuge boundaries should follow waterways.
- The public might be locked out of the wildlife refuge.
- It may not be possible to restore waterfowl populations on the east side of Interstate 5 because of the presence of the highway and development.
- Stop encroachment (impacts) from development.
- Maintain east side of Interstate 5 in a natural condition.
- Need buffer zones between refuge and development (1/4 mile).
- Consider the effects that a refuge will have on existing lands uses (i.e., agriculture, herbicide, odor).
- Boundaries should encompass enough land to create enough area to protect wildlife.
- Include the Yolo Bypass in the refuge.
- Having land in federal control.
- Will appraisals reflect true market value on properties adjacent to urban area?
- Control growth in Sacramento.
- Agriculture will be forced out by development.
- Consider effects on water quality from existing land uses.
- Consider impacts of wildlife on existing flood control and agricultural structures.
- Neighboring landowners must maintain the right to operate their property without adverse involvement by a refuge program.
- Would a refuge have to maintain a buffer between the boundary and the private landholder?
- If a landowner sold or entered into an easement on a portion of the property, what limitations would be imposed on the remaining property?
- There may need to be an approximately 1,000-foot buffer between refuge boundaries and private spraying operations.
- Point Pleasant is located on both sides of Interstate 5 at Lambert Road. This 100-year-old residential area should not be a part of the refuge. Approximately 100 people live here.

Water Resources Interests and Concerns

- Consider water quality impacts from upstream users, such as the Sacramento Regional Wastewater Treatment Plant and storm systems.
- Consider the impacts of nonpoint-source discharges, both legal and biological implications.
- Consider the potential for contamination by heavy metals and toxics and also biostimulatory effects.
- Consider available water supply.
- Consider the need to secure water rights (appropriative and riparian).
- Consider the impact of future development upstream and downstream of flooding.
- Integrate refuge management with regional flood control policies.

Table A-2. Continued

- Consider water management alternatives within the refuge by utilizing:
 - structures and
 - water level regimes.
- Consider the potential to use reclaimed water.
- Impact of future development on upstream supply and downstream flooding.
- Support resolution of the Lambert Road flood control structure with integration of flood management of Morrison Creek.
- The Lambert Road flood control structure could affect the historical water levels of the Stone Lakes.
- Consider the potential for water pollution from urban runoff.
- Does the average treatment plant have adequate safeguards to prevent overflow of effluent?
- Additional urban development in the area would increase flood problems.

Wildlife Habitat and Populations Management Issues and Concerns

- Existing wildlife habitat is valuable right now.
- Public access should be limited and controlled in wildlife habitat.
- Forage must be provided in the refuge and in the buffer zone.
- Area of refuge must be large enough to provide a diversity of habitat types.
- Restore the area between Lower Beach Lake and Interstate 5 to natural habitat.
- Incentive should be available to farmers to engage in farming practices that enhance habitat and benefit wildlife (i.e., creation of habitat edges next to fields).
- Reintroduction of native plant species should be considered.
- Inventory and identify lands for restoration potential.
- Restore habitat for certain species (i.e., Swainson's hawk, herons, egrets, sandhill cranes, giant garter snake, pelicans, cormorants).
- Restore habitat to pristine conditions.
- Identify and protect vernal pools.
- Incorporate habitat restoration efforts into an environmental education program.
- Provide positive incentives to encourage landowners' involvement in the preservation and restoration of habitat (i.e., tax incentives, easements, subsidies).
- Permit only compatible public access and use.
- Ensure necessary water quality and quantity for refuge purposes.
- Provide for development buffers.
- Manage for multiple species common to the area (flora and fauna).
- Inventory and identify wildlife species present at the refuge.
- Hunting as a management issue should be addressed.
- Types of crops grown should be studied with regard to benefits to wildlife and potential for crop depredation.

Table A-2. Continued

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- Populations of declining rare, threatened, and endangered species should be protected and enhanced.
 - Environmental laws should be enforced.
-

Agencies

<u>Acronym</u>	<u>Commenter</u>
RD551	The Board of Trustees, Reclamation District 551
RD744	The Board of Trustees, Reclamation District 744
SWRCB	California State Water Resources Control Board

Companies and Organizations

<u>Acronym</u>	<u>Commenter</u>
DW	Defenders of Wildlife
PG&E	Pacific Gas and Electric Company
SAS	Sacramento Audubon Society
SCFB	Sacramento County Farm Bureau
SSPC	South Sacramento Preservation Council

Private Individuals

John P. Baranek - The Herzog Company
James Christie
George E. Dierssen III - Dierssen Corporation
Joann, Ron, and Bryan Dick
Darrell R. Ferreira
Cathy George
Hefner, Stark & Marois (HS&M) - representing E & J Properties
Mrs. Frank Hutton
Kurt Jonson
Betty Kuhn
Christopher Lee
Thomas McCormack
Kathy Monahan
Richard Samra - Clarksburg Winegrowers Association
Russell E. and Carel D. van Loben Sels - Amistad Ranches
Sutter Home Winery (SHW) - Hal Huffsmith, Louis Trincherro
Thomas T. Whitney
Kathy Hansen
Commenter for agricultural issue 16 and alternatives issue 17 (name is illegible)

Issues and Concerns

The following categories were used to group the summarized scoping comments:

- USFWS land acquisition policies and programs;
- project description;
- alternatives;
- agriculture;
- hydrology, flood control, and water quality;
- wildlife and habitat;
- recreation, public use, and environmental education;
- land use;
- fiscal resources;
- National Environmental Policy Act (NEPA) issues;
- permitting and California Environmental Quality Act (CEQA) issues;
- public health and safety;
- growth inducement; and
- cumulative impacts.

The agency or individual providing the comment is noted after each comment summary. Comments by a private individual are indicated in the issues summary by "PI" before the commenter's name.

USFWS Land Acquisition Policies and Programs

1. Because of present law, the federal and county governments could use eminent domain condemnation sales. (PI-Ferreira)
2. Identify when a private landowner would be forced to sell. (PI-Christie)
3. Because the Elliott Ranch is surrounded on two sides by urban development and on three sides by major roads, its "highest and best use" would be development, and its appraised value would reflect this fact. (PI-HS&M)
4. Is a cost-benefit analysis to be performed for implementation of the project and, if so, will it be included in the EIS in accordance with 40 CFR 1502.22? What cost-benefit ratio is deemed acceptable by the USFWS and would the USFWS be able to pay market value, assuming urban development as the highest and best use to preserve environmental values? (PI-HS&M)
5. Conduct a full study in accordance with the Fifth Amendment taking clause concerning each parcel of land that may be affected. (SCFB)

6. Acquiring property for establishing a wildlife refuge on a willing seller basis in the area will not work because of the adjacent perennial crops. (PI-Baranek)

Project Description

1. Recommend that all buffer zones for the wildlife refuge be inside USFWS-administered or -owned boundaries. (PI-Jonson)

Alternatives

1. Defenders of Wildlife strongly supports and endorses establishment of this exciting and important proposed refuge. (DW)
2. To increase the amount and quality of wetland habitat in Sacramento County, the Sacramento Audubon Society supports willing seller acquisition, conservation easements, and working with farmers to improve wildlife habitat on their farms. (SAS)
3. Examine Alternatives D and E and identify the resources of the area to draw the refuge boundary. (PI-George)
4. Recommend the Yolo Bypass site as a refuge in addition to this site. (PI-Whitney)
5. Include the Cosumnes River/Deer Creek/Badger Creek/Laguna Creek area and North and South Stone Lakes in the study area Alternative D. (PI-Whitney)
6. Examine alternative sites for the project, including, but not limited to, the Yolo Bypass, Cosumnes Preserve, Sherman Island, and other Delta islands interested in cooperative agreements for enhancement of waterfowl. (SSPC-Samra)
7. Should the proposed refuge force the abandonment of The Delta Ranch Vineyard, the loss of revenue suffered by both The Delta Ranch Partnership and Sutter Home Winery is estimated to be several million dollars per year during the productive life of the vineyard. Consider an area for the establishment of a wildlife refuge that is more economically responsible and ecologically sound. (SHW-Huffsmith, Abercrombie)
8. Sutter Home Winery and The Delta Ranch support Plan A. (SHW-Huffsmith)
9. Exclude Reclamation District 813 from the proposed Alternative C because one-half of the property in the district is planted to vineyards and the remaining property is proposed for vineyards. (SHW-Abercrombie)
10. The area north of Hood-Franklin Road, east of the dredger cut and railroad line, south of Beach Lake, and west of current Elk Grove development would make an excellent

wildlife refuge for wetland and upland animals, birds, and plants. It is located in a floodplain and floods frequently. Wetland and upland habitats are in the area. Its proximity to urban development to the east and the freeway through the middle allow many opportunities for wildlife observation and education. (PI-van Loben Sels)

11. The area south of Hood-Franklin Road, east of the dredger cut and Snodgrass Slough, west of I-5 and north of a line from Locke to I-5 is less suitable for establishment of a wildlife refuge because of the farming and businesses located in the area. Any restrictions or downzoning of property in the area would result in loss of agricultural production; loss in sales for related business; less employment; and less business for those who provide goods and services for farmers, their families, and their employees. (PI-van Loben Sels)
12. The area west of Snodgrass Slough and the dredger cut and railroad line is not in the 100-year floodplain; contains prime agricultural land used for diversified row crops, vegetables, vineyards, and orchards; has no wetland or upland habitat; and contains many homes and businesses. This area should be excluded from the boundaries of the proposed refuge because of its productivity and the economic impacts associated with any restrictions placed on operations or land uses. (PI-van Loben Sels)
13. Select a location for a wildlife refuge with the least disruption to residents, property owners, and businesses (such as an area in the lower Delta or the Yolo Bypass). (PI-van Loben Sels)
14. In selecting an alternative, consider whether large numbers of waterfowl use the area, the availability of a food source if large populations of waterfowl were to use the proposed refuge, and whether another area could provide better habitat for wildlife and migratory waterfowl with less disruption to landowners, business, and residents. (PI-van Loben Sels)
15. The Board of Trustees of Reclamation District No. 744 is opposed to including any of the property it is responsible for draining and protecting from flood in an NWR. (RD744)
16. A natural boundary, the dredger cut on Reclamation District 744's eastern boundary, separates the prime agricultural property and businesses operating in Reclamation District 744 from the land best suited for wildlife habitat. This boundary line should be extended north to the northern boundary of the proposed refuge. (RD744)
17. Confine the refuge to property already owned by the government. (PI-name illegible)
18. Evaluate the Elliott Ranch property as an alternative to the proposed project. This would avoid the EIS assuming the availability of the property to the refuge project, but would still allow examination of the environmental values associated with the property and alternative ways they could be preserved.

19. In the study area, there is no threat of further loss of wetland habitat. The Delta is overstocked with species needing riparian areas and cultivated farmland. Look for an alternate site where wetlands are overstocked. (SCFB)
20. Other areas with lower property values would be more desirable for a wildlife and wetland area. (PI-Baranek)
21. All of Sacramento, Yolo, and San Joaquin Counties should be included in the proposed wildlife refuge boundary. (PI-Baranek)
22. Because it is doubtful that USFWS would be able or willing to pay the values derived from the "highest and best use" assumption, the Elliott Ranch should be excluded from the preserve. (PI-HS&M)
23. The EIS should not assume that the entire Elliott Ranch is of uniform environmental importance; it should focus on the relative environmental importance of portions of the property. This analysis should take into consideration the conditions now pertaining on the Elliott Ranch, as well as the conditions that would pertain if the Elliott Ranch were farmed as permitted by the general plan and zoning ordinance or otherwise devoted to an economically viable use. (PI-HS&M)
24. Conduct a nationwide search for a more suitable site and include in the criteria sites with community support, sites where the project would change an entire ecosystem, sites without such unique and rich farmland, and sites with more important flyways. (SCFB)
25. The trustees strongly object to the inclusion of any Reclamation District 551 lands in an NWR; the district is intensively cultivated, and agricultural purposes should not be limited or interfered with in any way. The historical agricultural uses are important to affected landowners and to the nourishment of the population and economic health of the area. (RD551)
26. Sutter Home Winery wishes to restate its position on the refuge. Sutter Home is not in opposition to the concept of a wildlife refuge in the Stone Lakes area. Our concern is that nothing required by the refuge have a negative impact on our vineyard and viticultural practices. The goals of preserving open space, protecting wildlife, and preventing urban sprawl are all compatible with the maintenance of vineyards and orchards. We await the EIS to further clarify our position concerning the refuge. (SHW-Trinchero)

Agriculture

1. Agricultural operations in the area between Lambert Road, the Mokelumne River, Snodgrass Slough, and Highway 99 involve a diversity of products and are dependent on a specialized, regimented approach to compete financially. (PI-McCormack)
2. Putting this land into a refuge would curtail current agricultural practices. (PI-Ferreira)
3. Recommend that no restrictions on pesticide or herbicide use be placed on landowners adjacent to the NWR. (PI-Jonson)
4. Consider the compatibility of a wildlife refuge with maintaining the diversity of current farming and the compatibility of pesticide and herbicide use for agriculture with a wildlife refuge. (PI-Jonson)
5. Establishing a preserve would make the surrounding farmlands more desirable as it would protect them from development and other hazards. It would keep a better landscape and better breathing space. (PI-Hutton)
6. Do not convert the 1,000-acre Circle K Ranch to wetlands. (PI-Kuhn)
7. Establishment of a wildlife refuge will affect our present farming operation. (PI-Dierssen)
8. Address the problems winegrowers will encounter from refuge activities, including how crop depredation will affect wine grapes. (PI-Samra, PI-Baranek)
9. Consider the impacts on the intensive agricultural crops grown in the proposed refuge boundaries and on adjacent lands (i.e., vineyards, pear orchards, tomatoes, beans, safflower, sudangrass, sugar beets, apples, vegetables, and other crops in the region). (SSPC-Samra, PI-Baranek)
10. Include in the impact analysis the potential for increased fungus and disease problems to the various crops from refuge activities and the effects of increased insect pressure on agricultural crops. (SSPC-Samra, SCFB, PI-Baranek)
11. Analyze all impacts that would impede farm operations. (SSPC-Samra)
12. Consider the impacts of crop depredation within the refuge boundaries and throughout the county. Include impacts on aquaculture (the increased population of fish-eating birds throughout the region). (SSPC-Samra, PI-Baranek)
13. Should USFWS have the authority to restrict or prohibit certain farming practices, conflicts may arise with traditional agricultural practices used in the Delta Ranch

Vineyard (Delta Ranch). Should USFWS prohibit the use of spray materials incompatible with the resident wildlife population, the probability of crop failure from insect, mildew, and rot damage would be increased. (SHW-Huffsmith, PI-Baranek)

14. Select an area for a refuge where only one crop is grown and fieldwork does not occur year round. Because of the diversity of crops grown in the Stone Lakes study area, fieldwork occurs year round. (PI-van Loben Sels, PI-Baranek)
15. Many of the crops grown in the study area require extensive tillage. No-till farming is not suited for the area because winters are not cold enough to freeze the ground; without heavy tillage (e.g., plowing or chiseling), the ground would become compacted, and low yields and lost revenues would result. Annual flooding to leach salts from the soil cannot be performed successfully in the area because of soil types and crops grown. (PI-van Loben Sels)
16. Any additional restrictions placed on farming practices could be the end of economic commercial pear growing in the area. (PI-name illegible)
17. Consider the impact of conversion of farmland, including loss of a unique viticultural area and the loss of a unique combination of soil, climate, and water available that supports a diversity of crops unlike any other area in the nation. This is such a unique farmland area that many crops lost will be lost forever. This loss is therefore not mitigable. (SCFB)
18. Considering statewide, nationwide, and worldwide population growth and existing demand for the specialized farm products produced in the proposed project area, the lost production would have to be compensated for somewhere else. Identify the area of currently unproductive land that has the necessary soil, water, climate, proximity to market, economic conditions, and supportive services to compensate for the lost production, and the effects on that area of putting the replacement land into production. (SCFB)
19. Classifying the 397 acres of land in Reclamation District 813 on the Herzog Company property as "unique" farmland is in error. The land should have been classified as "prime" farmland. (PI-Baranek)

Hydrology, Flood Control, and Water Quality

1. Consider the incompatibility of a refuge with the goals of Reclamation District 1002. (PI-McCormack)
2. Address the competition for water to serve both agriculture and waterfowl. (PI-McCormack)

3. Compare and contrast the likely costs to federal, state, and local taxpayers of constructing proposed flood control improvements versus recommended refuge acquisitions. It may be less expensive to acquire specific lands with known flood risks than to subsidize possibly more expensive flood control structures that may lead to substantial land appreciation and more intensive land uses. (DW)
4. One of the highest priorities in establishing the proposed Stone Lakes NWR should be to ensure reliable water supplies of suitable quality and quantity. (DW)
5. Treated sewage from Sacramento is one water source for this refuge. If treated sewage is used, it should be monitored and safeguards implemented to determine if contamination problems arise, such as the potential for accumulation of heavy metals. (DW)
6. The EIS should document the water rights, including the place and purpose of use of those rights, held by the current landowners within the proposed boundaries of the Stone Lakes NWR. Evaluate the anticipated seasons and the amounts of any additional water found necessary to operate the refuge. (SWRCB, SCFB)
7. Conduct a hydrology study on the affected properties for the last 50 years. Document and analyze the hydrologic changes from extensive development. (PI-Jonson)
8. Analyze the changes to microclimate and regional climate caused by flooding of large tracts of land to create wetlands. (SSPC-Samra, SCFB)
9. Analyze the impact of increased water tables because of refuge activities, the ability of the levees to maintain adequate drainage, and whether refuge activities would interfere with flood control by the reclamation districts. (SSPC-Samra)
10. Urban storm runoff from 190 square miles drains through the Stone Lakes. Analyze the level of contaminants contained in the runoff and what increase of contamination will occur over the 40-year buildout of the watershed. Analyze the impacts of the runoff on the proposed refuge and on humans and wildlife in the region. Address how urban storm runoff will be monitored if the proposed refuge is implemented and whether tolerance levels of contaminants in urban runoff are the same for an agricultural area as for a wildlife refuge. (SSPC-Samra)
11. If The Delta Ranch Vineyard is restricted from mechanically cleaning Snodgrass Slough between Herzog Farms and Wooster Farms and the slough became so matted with vegetation that water would not flow through it, Delta Ranch could not use the slough for irrigation. If Delta Ranch is restricted from cleaning its ditches, the water table would rise from obstruction and leave the ground unsuitable for growing grapes. The inability of property owners to maintain the levees (e.g., preventing seepage by burning annually to control vegetation and controlling rodents as necessary) is a significant impact on flood control. (SHW-Abercrombie)

12. Consider in the EIS how the refuge will obtain water without interfering with efforts to drain the rest of the reclamation district and how refuge water will be kept on refuge property so it is not an additional burden on the reclamation districts. (PI-van Loben Sels)
13. Exclude reclamation district levees from refuge boundaries because the levees provide flood protection for all residents, businesses, and lands. (PI-van Loben Sels)
14. Address the impacts on adjacent lands from higher water tables caused by refuge flooding and creation of wetland habitat. Consider the impacts on reclamation districts from the excess water. (PI-van Loben Sels, PI-Baranek, SHW-Huffsmith)
15. Address short-term and long-term impacts on levee repair and maintenance, water quality, water quantity, the State Water Project, the Central Valley Project, existing and future water projects, and upstream and downstream hydrology (including water temperature and saltwater intrusion). (SCFB)
16. The reclamation district must be able to maintain its levees and drainage system to protect the homes, businesses, and prime agricultural property within its boundaries. The district's drainage system is designed to drain the entire district, and the natural flow of the drainage cannot be rerouted.

The district's ditch system is used to store and transport irrigation water during summer and fall and is pumped to as low a level as possible in winter and early spring to provide capacity for storm runoff and keep the water table as low as possible during winter months. The proposed flooding of the refuge property in the district during winter and spring conflicts with the district's drainage efforts. The proposed flooding of the refuge property in the district in summer will conflict with preventing the water table from rising on adjoining lands and keeping the water out of the district's drainage ditches.

Maintenance of the district's drainage system performed in winter (removal of excess dirt, aquatic weeds, other obstructions, and excessive brush on ditch banks using a drag line) may conflict with the operation of an NWR in certain areas. In addition, the power lines running through the proposed refuge to supply power to district pumps will pose a hazard to refuge wildlife. (RD744)

Wildlife and Habitat

1. Consider the ability of plant and wildlife species to cross roadways that may transect eventual refuge holdings. Determine the feasibility of providing underpasses or overpasses to allow for necessary biological movement. Evaluate ability of existing drainage culverts or tunnels under roadways to allow passage of the variety of species present. (DW)

2. It is imperative that this and other refuges be planned and coordinated to integrate landscape ecology and conservation biology principles. (DW)
3. Strive for the maximum coordination and cooperation with other federal, state, and private landowning and resource managing agencies and entities to facilitate comprehensive habitat conservation. (DW)
4. It is critically important that the refuge encompass a variety of aquatic and terrestrial habitat types of suitable size to ensure the continued viability of natural communities of species. (DW)
5. The overall goal of this refuge should be to protect and restore appropriate federally listed and state-listed, proposed, and candidate species; help fulfill the objectives of the Central Valley Habitat Joint Venture under the North American Waterfowl Management Plan; and sustain the natural diversity and abundance of native species occurring in the represented habitats. (DW)
6. This project provides the opportunity to achieve restoration of historic grassland, oak woodland, and riparian habitats. (DW)
7. No restoration projects should occur where native habitats are already present; projects should occur where exotic species dominate, or where habitats are converted or are substantially degraded. (DW)
8. Support the preservation, enhancement, and expansion of natural habitat in the Stone Lakes basin to an extent that will create a continuous corridor through the valley. (PI-Dick)
9. The area is important to the health and preservation of local species of native plants and animals; it is a vital link in the dwindling chain of habitats for migratory species that extends from the Arctic to South America. (PI-Dick)
10. Large portions of the wetlands remaining in Sacramento County will be subject to future destruction unless they are protected now. (SAS)
11. Maintain a diversity of habitat and include the vernal pools on the east side of I-5 in the study area. (PI-George)
12. Link wildlife corridors and maintain the connection with the Cosumnes River corridor. (PI-George)
13. The area is an important link in the continued survival of migrating bird populations, in addition to vernal pools and other natural communities that need protection. (PI-Whitney)

14. The ever-growing push from population increases and development makes it imperative to preserve open space along with wetlands for wildlife. (PI-Hutton)
15. We have a national obligation to sustain the needs of migratory birds, especially because their support network has dwindled seriously internationally. (PI-Hutton)
16. Maintain the area around Stone Lake as wetlands. (PI-Kuhn)
17. Address the impact of loss of crop residue on wildlife existing on nonwetland habitat. (SCFB)
18. To increase the amount and quality of wetland habitat in Sacramento County, the Sacramento Audubon Society supports willing seller acquisition, conservation easements, and working with farmers to improve wildlife habitat on their farms. (SAS)

Recreation, Public Use, and Environmental Education

1. Proximity to two major urban centers offers the potential for volunteer recruitment for habitat restoration projects and a positive vehicle for school children and public involvement. (DW)
2. Consider the impacts on water sports in Snodgrass Slough. (PI-Jonson)
3. Emphasize wildlife protection in managing the area and give less importance to nature education. (PI-Whitney)

Land Use

1. The McCormack Williamson Tract television towers may pose a problem to wildlife. (PI-McCormack)
2. The incompatibility of a refuge for waterfowl with natural gas production is an area of concern. (PI-McCormack)
3. Elaboration is needed as to whether a wildlife refuge would preclude this land for its highest and best use, residential and commercial development. (PI-McCormack)
4. Identify what limitations would affect land uses bordering the refuge (e.g., future development, use of agricultural chemicals). (PI-Christie)
5. Analyze the impacts on the quality of life of residents living in and adjacent to refuge boundaries. (SSPC-Samra)

6. Analyze all impacts that would affect landowners' property rights. (SSPC-Samra)
7. Consider in the analysis of loss of prime agricultural lands because of proposed refuge activities the conflicts with policies of Sacramento County for the preservation of agricultural lands. (SSPC-Samra)
8. The Delta Ranch Partnership has spent a great deal of time and money preparing and draining the soil to cultivate fine wine grapes that vineyards in the Delta climate are capable of producing. Should the refuge flood adjacent properties to attract waterfowl, the resulting wetlands would undoubtedly aggravate the high groundwater problem, intensify the residual soil salt problem, and possibly kill the vines. (SHW-Huffsmith)
9. Exclude Reclamation District 813 from the proposed Alternative C because one-half of the district is planted in vineyards and the remainder of the property is proposed for vineyards, a use incompatible with a wildlife refuge according to the USFWS. (SHW-Abercrombie)
10. The Board of Trustees of Reclamation District 744 believes that the operation of the reclamation district is not compatible with the formation of a wildlife refuge in its boundaries. The function of the reclamation district is to reclaim, and the function of the wildlife refuge is to restore. (RD744)
11. Any temporary or permanent land use restriction freezing the uses allowed on the Elliott Ranch to those presently occurring would disallow any economically viable use of the property. This would raise Fifth Amendment taking clause issues. (PI-HS&M)
12. PG&E owns and operates gas and electric facilities within the boundary lines of the project. Refuge operation and maintenance could conflict with operation and maintenance of PG&E facilities; proposed site development needs to be coordinated to identify potentially incompatible uses and explore alternatives. (PG&E)

Fiscal Resources

1. Analyze the degree to which delayed refuge acquisitions may mean substantially increased acquisition costs as well as reduced opportunities for refuge acquisitions, given further conversion of habitats and associated developments. Include a schedule to identify the general rate of land appreciation and acquisition costs, and the prospect for zoning changes or other developments. (DW)
2. Limiting acreage to a specific area puts a cloud over a landowner's title because of the intent of the USFWS. The sale of the property may be affected because of the government's intent to purchase. This results in reduced property value by eliminating competition to purchase. (PI-Ferreira, PI-Baranek)

3. Land values within and adjacent to the refuge would not keep pace with the land values outside the boundaries of the refuge for like property. (PI-Ferreira, SSPC-Samra)
4. The economic impact would include loss of revenue through taxes to local, state, and federal governments and loss of jobs on the farms as well as agriculturally related businesses. Consider the overall economic picture and the effects on Sacramento County. (PI-Ferreira, SSPC-Samra, PI-Baranek)
5. The highest reimbursement to the landowner is the key issue. (PI-Monahan)
6. Consider the financial impact on all communities affected by the loss of farms and farm laborers. Consider the impact on fire districts, school districts, and reclamation districts from the loss of property taxes. (PI-Jonson, SSPC-Samra)
7. Identify what factors determine the fair value of land to be purchased for inclusion in the refuge. (PI-Christie)
8. With the U.S. deficit compounding at \$1 billion a day, income-producing property should not be converted. (PI-Kuhn)
9. Including the Circle K Ranch in the area to be converted to wetlands affects the potential sale of the property. (PI-Kuhn)
10. Establishment of a wildlife refuge will affect land values adversely now and in the future. (PI-Dierssen)
11. Identify to what extent land values for potential vineyard land will be diminished by creation of a wildlife refuge in the Clarksburg Appellation. (PI-Samra)
12. Identify what effect the creation of a wildlife refuge will have on the value of existing vineyards and their salability now and in the future. (PI-Samra)
13. Identify whether the creation of a wildlife refuge will impede, hinder, or otherwise interfere with the ability of winegrowers to secure financing for crop production or long-term financing to establish vineyards or other capital improvements now and in the future. (PI-Samra)
14. Address how winegrowers will be compensated for crop losses, what dollar amount of crop damage is anticipated, and what dollar amount of damage to wine grapes is anticipated over a 10-year period. (PI-Samra)
15. Analyze the impacts on the ability to finance property or secure loans by all persons within the refuge boundaries. (SSPC-Samra, PI-Baranek)

16. Should the proposed refuge force the abandonment of The Delta Ranch Vineyard, the loss of revenue suffered by both The Delta Ranch Partnership and Sutter Home Winery is estimated to be several million dollars per year during the productive life of the vineyard. Consider an area for the establishment of a wildlife refuge that is more economically responsible. (SHW-Huffsmith)
17. The EIS should analyze impacts on the Elliott Ranch property separately and not merely assume its eventual consolidation into the balance of the proposed refuge. It is privately owned and essentially idle pending its development to economically viable uses. Some use of the property must be allowed; it cannot be forced to remain idle with no economically viable use pending its eventual possible inclusion in the refuge. Developing it for farming would disrupt the environmental values sought to be preserved by the refuge, however, because it would need to be converted to a fully functional, irrigated row-crop farm to lessen economic losses if only agricultural operations were permitted on the property. (PI-HS&M)
18. Because of the unique diversity of soil, climate, water availability, and other factors, the Delta has a unique, specialized, and diverse agriculture that supports many local and regional enterprises that are customized to serve the unique area. The conversion of vast farmland as proposed by the project would affect the economy beyond the borders of the Delta. The economic impacts grow exponentially throughout the economy. (SCFB)
19. Restrictions on agricultural practices and crop depredation by wildlife could increase farming costs resulting in the abandonment of agriculture in the area. (PI-McCormack)
20. Compare and contrast the likely costs to federal, state, and local taxpayers of constructing proposed flood control improvements versus recommended refuge acquisitions. It may be less expensive to acquire specific lands with known flood risks than to subsidize possibly more expensive flood control structures that may lead to substantial land appreciation and more intensive land uses. (DW)

National Environmental Policy Act Issues

1. Will this be a tiered EIS under 40 CFR 1052.20? Will subsequent environmental analysis be performed as separate properties are purchased for inclusion in the refuge? What ongoing environmental analysis will be done? (PI-HS&M)
2. Address all the "Issues and Concerns" prepared by the USFWS to summarize the April 4 and April 10 workshops. (PI-HS&M)
3. Assume the worst-case scenario when analyzing impacts of the area and that all the property designated will become wetlands. (SCFB)

Permitting and California Environmental Quality Act Issues

1. Under California law, one must establish a legal right to divert surface waters before they can be put to beneficial use. The SWRCB has jurisdiction over surface water and water flowing underground in known and definite channels. Water rights permits are granted by the board; the approval process may take several years if the application is protested. (SWRCB)
2. Before the SWRCB can grant a water right permit, an environmental document that satisfies CEQA must be prepared, circulated, and finalized. It is hoped that the EIS being prepared by USFWS will be adequate for CEQA and can be used for that purpose. (SWRCB)
3. Conduct the EIS to comply with the requirements of CEQA. (PI-Whitney)

Public Health and Safety

1. Determine the public health risks of creating wetlands to attract waterfowl. Migrating waterfowl can become carriers of disease; mosquitoes in contact with infected waterfowl can carry malaria and encephalitis. (SHW-Abercrombie)
2. Address long-term, stable funding for control of arthropods and arthropod-vector-disease. Include identification of water sources and water quality on the growth of mosquitoes and other disease-carrying arthropods. Address funding for continuous monitoring of arthropod populations and diseases carried by waterfowl, methods and costs of mosquito control (include which agency will monitor and the source of the funding), and the ecological balance of natural predators. Public health has traditionally combatted malaria and the viral encephalitides by draining wetlands. (PI-Hansen, PI-Lee, SCFB)
3. Analyze the consequences of a major change to the Delta biota, including the introduction of new diseases and pests and the disruption of the existing biological balance on existing diseases and pests. (SCFB)
4. Increased public access to reclamation district lands and levees will increase the district's liability exposure. Measures necessary to reduce the exposure (e.g., fencing ditches and pumps) are expensive and incompatible with a wildlife refuge. Increased public access will result in an increase in vandalism to district property and property of the residents and businesses located in the district. (RD744)
5. Address whether potential disease or insect pressures will be created, enhanced, or aggravated by implementation of a wildlife refuge in the Clarksburg Appellation. (PI-Samra)

6. Analyze the effect on residences and adjoining urban areas of increased insect populations and potential disease problems that will be created or enhanced. (SSPC-Samra)

Growth Inducement

1. Identify the impacts of this project on growth in other areas. (SCFB)

Cumulative Impacts

1. Use a worst-case scenario and assume that all current proposals to convert farmland to wetland will succeed. The EIS should analyze the cumulative effects of the total amount of farmland proposed for conversion to wetlands.
2. Address the cumulative effects of all proposals to downzone, regulate, or otherwise restrict the uses of Delta farmland (e.g., the draft general plan for Sacramento County, which includes several new categories of downzoning) and projects that would affect the value of Delta farmland. (SCFB)

Appendix C. Section 7 Consultation

C-2

C - 0 5 7 2 4 7

C-057247



United States Department of the Interior

TAKE
PRIDE IN
AMERICA

FISH AND WILDLIFE SERVICE
Fish and Wildlife Enhancement
Sacramento Field Office
2800 Cottage Way, Room E-1803
Sacramento, California 95825-1846

DEC 6

In Reply Refer To:
1-1-92-I-126

December 5, 1991

Memorandum

To: Assistant Regional Director, Refuges and Wildlife
Portland, Oregon (ARW)

From: Field Supervisor, Sacramento Field Office
Sacramento, California (SFO)

Subject: Section 7 Evaluation for the Stone Lakes National Wildlife Refuge

Enclosed is my concurrence with the findings presented by Steve Vehrs in the attached internal section 7 evaluation form. Acquisition of the Stone Lakes National Wildlife Refuge will offer many opportunities to enhance federally listed species as well as other fish and wildlife resources.

If you have any questions concerning this response, please contact Peggie Kohl at (916) 978-4866.

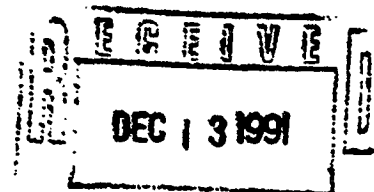
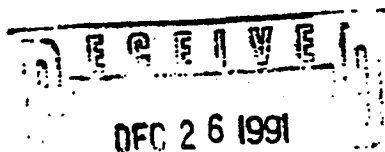
Wayne S. Kohl

Attachment

U.S. DEPT. OF INTERIOR

DEC 30 1991

U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA



C-3

C-057248

C-057248

INTRA-SERVICE SECTION 7 EVALUATION FORM
CONSULTATION/CONFERENCE/CONCURRENCE

Originating Person:
Date:

- I. Region: Region 1
- II. Service activity: Land Acquisition - Stone Lakes National Wildlife Refuge.
- III.A. Listed species and/or their critical/essential habitat. See pgs. 4E-21-4E-31, Draft Environmental Impact Statement for Stone Lakes National Wildlife Refuge.
1. Within the action area that will or may be affected:
 2. Within the action area that will not be affected:
- B. Proposed species and/or proposed critical habitat. See pgs. 4E-21-4E-31, Draft Environmental Impact Statement for Stone Lakes National Wildlife Refuge.
1. Within the action area that will or may be affected:
 2. Within the action area:
- IV. Geographic area or station name and action. Stone Lakes National Wildlife Refuge, Sacramento County, California; see pg. 1-2, Draft Environmental Impact Statement for Stone Lakes National Wildlife Refuge.
- V. Location (attach map): See pg. 6-2, Draft Environmental Impact Statement for Stone Lakes National Wildlife Refuge.
- A. County and State: Sacramento County, California.
 - B. Section, township, and range: not available.
 - C. Distance (miles) and direction to nearest town: 12 miles south of Sacramento, California.
- VI. Action objectives: See pgs. 1-7 - 1-12, Draft Environmental Impact Statement for Stone Lakes National Wildlife Refuge.
- VII. Explanation of impacts of action: See pgs. 4A-1 - 6-37, Draft Environmental Impact Statement for Stone Lakes National Wildlife Refuge.

VIII. Effect determination and response requested.

A. Listed species/critical/essential habitat:

<u>Determination</u>	<u>Response Requested</u>
<input type="checkbox"/> will not affect	<input type="checkbox"/> *concurrence
<input checked="" type="checkbox"/> beneficial effect	<input checked="" type="checkbox"/> concurrence
	<input type="checkbox"/> *formal consultation
<input type="checkbox"/> is not likely to adversely affect	<input type="checkbox"/> concurrence
	<input type="checkbox"/> *formal consultation
<input type="checkbox"/> is likely to adversely affect	<input type="checkbox"/> formal consultation

B. Proposed species/proposed critical habitat:

<u>Determination</u>	<u>Response Requested</u>
<input type="checkbox"/> will not affect	<input type="checkbox"/> *concurrence
<input checked="" type="checkbox"/> beneficial effect	<input checked="" type="checkbox"/> *concurrence
<input type="checkbox"/> is not likely to adversely affect	<input type="checkbox"/> *concurrence
<input type="checkbox"/> is likely to adversely affect	<input type="checkbox"/> *concurrence
<input type="checkbox"/> is likely to jeopardize/ adverse modification of critical habitat	<input type="checkbox"/> conference

Remarks:

* optional

SECTION 7 EVALUATION

Environmental Impact Statement for the proposed acquisition of:

Stone Lakes National Wildlife Refuge

INITIATING OFFICER Christopher H. Velas, Chief DATE 6/7/91
☒ CONCUR (MARK ONE) DO NOT CONCUR

COMMENTS:

*This action will have a positive impact on
T&E species utilizing the area*

FWE FIELD SUPERVISOR Wayne S. White DATE 12/4/91
☒ CONCUR (MARK ONE) DO NOT CONCUR

COMMENTS:

ARD-RW [Signature] DATE 12/16/91
☒ CONCUR (MARK ONE) DO NOT CONCUR

COMMENTS:

ARD-FWE A Dale Hall DATE 12/20/91
☒ CONCUR (MARK ONE) DO NOT CONCUR

COMMENTS:

Appendix D. Mosquito Control Guidelines and Wetlands Policy Resolution

D-2

C - 0 5 7 2 5 3

C-057253

SACRAMENTO-YOLO
MOSQUITO
& VECTOR
CONTROL
DISTRICT



1650
Silica Avenue
Sacramento,
California
95815
Telephone
916.922.6526
Fax
916.924.1071

September 20, 1991

Peter Jerome
U.S. Fish and Wildlife Service
Jamaica Plaza
2233 Watt Avenue, Suite 315
Sacramento, CA 95825

Dear Pete,

Enclosed for your information is a resolution passed by the District's Board of Trustees regarding wetlands. Also, I am sending along some guidelines on the construction of potential mosquito free wetlands.

I appreciated your phone call the other day and agree that we should get together and form a MOU for these sensitive areas. Give me a call and lets set up a meeting.

Sincerely,

Allen Hubbard

MANAGER
Allen R. Hubbard

AH/db

1991
BOARD OF TRUSTEES

Raig R. Burnett, President
olsom

Cedro T. Casado, Vice President
Galt

John E. Golden, Secretary
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Kerwin K. Knight
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Woodland

Robert K. Washino
Paris

U.S. DEPT. OF INTERIOR

SEP 24 1991

U.S. FISH AND WILDLIFE SERVICE
SACRAMENTO, CALIFORNIA

D-3

C - 0 5 7 2 5 4

C-057254

RESOLUTION NO. 8/20/91B

A RESOLUTION OF THE BOARD OF TRUSTEES OF THE
SACRAMENTO-YOLO MOSQUITO AND VECTOR CONTROL
DISTRICT ESTABLISHING A POLICY CONCERNING
WETLANDS DEVELOPMENT AND RESTORATION

WHEREAS, there has been and is expected to continue be a proliferation of new, and restoration and expansion of existing, wetland areas;

WHEREAS, the District is very concerned about public health, nuisance and comfort impacts resulting from mosquito breeding in new wetland areas; and,

WHEREAS, the District desires to establish this policy concerning newly developed and restored wetland areas;

NOW, THEREFORE, BE IT RESOLVED by the Board of Trustees as follows:

1. For purposes of this resolution, "Wetlands" means the development of new or restoration of existing areas of land that contain or hold water capable of serving as a breeding ground for mosquitos, including, but not limited to, wildlife refuge areas, duck ponds, marshes, and artificial wetland areas constructed as mitigation pursuant to the issuance of a permit under section 404 of the Clean Water Act.

2. The Board hereby finds and determines as follows:

a. Wetlands provide excellent habitat and breeding grounds for mosquitos.

b. If not properly designed, constructed, operated and maintained so as to minimize mosquito breeding, Wetlands will result in significant increases in the number of mosquitos within the District, and result in adverse public health, nuisance and comfort impacts, particularly in those urban areas located in close proximity to Wetlands.

c. The Sacramento County Health Department and the Yolo County Department of Public Health have each concluded that Wetlands may have a significant negative impact on public health because of the increase in the potential for vector-borne diseases (e.g., encephalitis and malaria), and that public health authorities should be consulted in the design and construction of Wetlands. (See the June 27, 1991 letter from Dr. Hinton and the July 9, 1991 letter from Dr. Bates, copies of which are attached.)

d. If not properly designed, constructed, operated and maintained, mosquitos generated from Wetlands may cause great annoyance, nuisance and discomfort in urban areas of the District, along with resulting adverse economic impacts and decreases in real estate values. (See A Training Manual for California Mosquito Control Agencies (California Mosquito Control Association, 1980) sections 5.4 & 6.0.)

D-4

e. If not properly designed, constructed, operated and maintained, there will be a significant adverse impact on outdoor recreational activities (e.g., softball, Little League baseball, soccer, walking, barbecuing) in urban areas located in close proximity to Wetlands, especially during the after-work and after-school hours in the late afternoon and early evening when mosquito feeding and such recreational activities are most prevalent. For example, this problem is potentially very grave in the urbanized residential community in the Pocket Area of the City of Sacramento, located very close to the proposed wetlands area in the Yolo bypass.

f. The District strongly supports the preservation of existing natural wetland areas, and the creation of new and restoration of existing wetland areas when designed, constructed, operated and maintained in such a manner as to minimize mosquito related impacts.

3. It is the policy of the District that Wetlands shall be designed, constructed, operated and maintained in such a manner as to minimize mosquito related impacts to a less than significant level. Any federal, state or local governmental entity involved in the planning, design and/or construction of Wetlands must consult with the District and applicable County public health authorities to ensure that the Wetlands are designed, constructed, operated and maintained in such a manner as to meet this standard.

4. It is the policy of this District that Wetlands shall be designed, constructed, operated and maintained in accordance with the District's Wetland Development and Management Guidelines for the Control of Mosquitos, a copy of which is attached to this resolution.

5. The District Manager and his designees are authorized and directed to aggressively participate with applicable federal, state and local governmental entities in the planning, design and construction of Wetlands so as to ensure the Wetlands meet the standards of this resolution. The District staff shall also work with these governmental entities to determine and identify who or which entity is responsible for the ongoing operation and maintenance of the Wetlands so as to ensure that the Wetlands continue to meet the District's standards, and to also identify the source(s) of funding for such operation and maintenance.

6. The District Manager and his designees are authorized and directed to aggressively participate in the review and comment procedures under the California Environmental Quality Act and the National Environmental Policy Act in order to inform other governmental entities and the public of potential impacts resulting from Wetlands and to suggest mitigation measures and alternatives to avoid or minimize such impacts.

7. The District Manager and his designees are authorized and directed to study, research and develop artificial wetland area

designs and plans and/or mitigation measures which will enable Wetlands to meet the standards of this resolution.

8. It is the policy of the District that the owner of the affected property and/or the sponsoring governmental entities pay the costs of operating and maintaining existing and new Wetlands in such a manner as to satisfy the District's standards under this resolution. In order to implement this policy, the District Manager and his designees are hereby authorized and directed to evaluate and analyze the propriety and benefits of establishing a service charge pursuant to Health and Safety Code section 2270(1) to pay for the cost of surveillance and control of mosquitos generated from Wetlands.

9. The District Manager is hereby authorized and directed to cause a copy of this resolution to be transmitted to all federal, state and local governmental entities involved in the planning, design, construction, operation and maintenance of Wetlands, including, but not necessarily limited to, the U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, Soil Conservation Service, State Department of Water Resources, State Department of Fish and Game, and the Counties of Sacramento and Yolo. These affected agencies are also hereby requested to provide written notice to the District of any proposed action concerning the planning, design and construction of Wetlands.

PASSED AND ADOPTED by the Board of Trustees of the Sacramento-Yolo Mosquito and Vector Control District on this 20th day of August, 1991, by the following vote:


AYES: 8
NOES: 0
ABSTAIN: 0
ABSENT: 2

SACRAMENTO-YOLO MOSQUITO AND
VECTOR CONTROL DISTRICT

By:


President

Attest:


Secretary

WETLAND DEVELOPMENT AND MANAGEMENT GUIDELINES FOR THE CONTROL OF MOSQUITOES

WATER MANAGEMENT

1. Have control of water using such structures as weirs, pumps and siphons. These structures should allow rapid and complete draining of wetlands during times of severe mosquito production or disease outbreaks.
2. The shore banks should be steep enough to prevent pooling as water level recedes and to allow wave action and access by predators.
3. Shoreline configuration should not isolate sections from the main body of water.
4. Depth should be maintained at a minimum of three feet during summer.
5. Water level should not fluctuate during the summer months.
6. Shallower areas need to be drained and dry during the mosquito breeding season.
7. Shallow water should not be allowed to stagnate.
8. Winter wet areas should drain into a deep area with an outlet spillway to maintain water elevation and to give refuge to mosquitofish and predatory insects.

VEGETATION MANAGEMENT

1. Limit dense stands of aquatic vegetation from shore margins in shallow areas to lower harborage and enhance wave action.
2. When aquatic vegetation is present it should be maintained in small islands.
3. Avoid plants that mat on the surface such as water hyacinth, smartweed, water primrose, knotgrass, pondweed, *Hydrilla* or filamentous algae.
4. Certain plants, in moderate stands, like cattails and bullrushes generally do not promote mosquito productivity and can function as substrate for mosquito predators.
5. All aquatic vegetation needs to be periodically removed or partially harvested to reduce density.

WATERWAY MAINTENANCE

1. Levees, drain ditches and other water structures should be constructed and maintained to prevent seepage or flooding into adjacent lowland areas.
2. Levee faces should be steeply-sloped to limit growth of marginal vegetation.
3. Dikes or drains should also have steep slopes (1.5 - 2 foot horizontal to one foot vertical) to allow adequate drainage without standing water, and should be maintained free of vegetation.

WATER QUALITY

1. Inhibit all organically enriched effluent, biological or chemical pollutants and contaminants from entering wetlands.
2. Prevent islands of floating solids, accumulations of debris and algae on water surface.
3. Prevent the use of treated sewage water or reclaimed wastewater on land where it may stand for three days or more.

BIOLOGICAL CONTROL

1. Stock wetlands with the mosquitofish *Gambusia affinis*.
2. Avoid stocking with game fishes or other predatory fishes that will reduce the population density of mosquitofish.
3. Inoculate and promote the development of any other approved biological agent for the control of mosquitoes.

CHEMICAL CONTROL

1. Allow provisions for air and ground applications of *Bacillus thuringiensis* var. *israelensis*, methoprene growth regulators or other EPA approved pesticides as needed.
2. Provide road access around all wet areas.

SURVEILLANCE

1. Allow access for continual larval and adult mosquito surveillance and the continual monitoring of water quality and vegetation density.
2. Have frequent and thorough inspections to prevent or control such problems as erosion, seepage, unwanted vegetation and burrowing animals.
3. Allow additional funding for local mosquito abatement and vector control agencies as needed for surveillance and management.

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**Appendix E. USFWS Issue Paper and Letter to the Public
Regarding Recommended Changes to the
USFWS's Stone Lakes NWR Project
Proposal**

E2

C-057261

C-057261



United States Department of the Interior

FISH AND WILDLIFE SERVICE

911 N.E. 11th Avenue
Portland, Oregon 97232-4181

December 18, 1991

Dear Reader,

Thank you for your participation in the planning process for the proposed Stone Lakes National Wildlife Refuge (refuge). We are contacting you at this time to provide you with a project update and inform you of recommended changes in the U.S. Fish and Wildlife Service's (Service) proposal.

The draft Environmental Impact Statement (Statement) for the proposed Stone Lakes Refuge in south Sacramento County was released for public review and comment in May 1991. During the 145-day comment period that followed, the Service conducted three public workshops and four public hearings on the establishment of the Stone Lakes Refuge. The comment period closed on October 15, 1991.

After careful review of the major issues, the planning team is recommending that the attached proposed policy revisions be incorporated into the Service's preferred alternative. In addition to these changes, the final Statement will address numerous additional concerns and issues raised by various agencies, groups, and individuals during the public comment period.

Generally, the changes being proposed by the Service planning team are designed to support the long term viability of agriculture in Sacramento County and ensure that future wildlife refuge management programs will minimize adverse effects on agricultural practices. The Service planning team will also recommend that major recreational boating use areas surrounding Delta Meadows near Walnut Grove, California, be deleted from the Refuge proposal.

The release date for the final Statement is scheduled for April 1992. A formal Record of Decision signed by Marvin Plenert, Regional Director, Pacific Region, U.S. Fish and Wildlife Service, will follow. This document will contain final decisions regarding the establishment of the Refuge.

Thank you for your continued interest in this project. If you have any questions or concerns, please do not hesitate to contact Peter Jerome, U.S. Fish and Wildlife Service, 2233 Watt Avenue, Suite 375, Sacramento, California 95825; telephone (916) 978-4420.

Sincerely,

Assistant Regional Director
Refuges and Wildlife

E-3

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1. Concern

"The potential for condemnation by the U.S. Fish and Wildlife Service could reduce farmers' access to loans for farm development. By increasing the riskiness of future investments within the acquisition boundary, the possibility of condemnation could reduce the values of such farms relative to the value of farms outside the acquisition boundary."

Response:

It is recommended that the Service would not use the power of eminent domain, i.e., condemnation, so long as existing or proposed agricultural land uses are consistent with the county general plan (1980) and current proposed revisions (November, 1990) to the general plan. This policy would not apply to non-agricultural uses that may be included in agricultural land classes in the general plan, eg., golf courses. In addition, the Service would provide necessary assurances to lending institutions, on behalf of landowners regarding this self-imposed sanction.

Should land use changes be proposed or amendments to the general plan occur which support non-agricultural uses, the Service would re-evaluate this position with respect to condemnation to determine if any action is necessary.

It is the intent of the Service to recognize that agriculture is an important component of Sacramento County's land use planning objectives. As stated in the "Open Space, Conservation and Resources Management Element of the county's current general plan, county policies have been developed to promote a healthy agricultural atmosphere. These policies generally affirm the county's support of agriculture by not allowing urban expansion beyond the areas already designated for existing or future urban use.

2. Concern:

"If the refuge is established, the U.S. Fish and Wildlife Service will unduly restrict or prohibit motorized boat use on navigable waters in the area of Delta Meadows."

Response:

The Service recognizes recreational boating use as an established traditional use of the Delta Meadows area with California State Parks as the primary public land manager. Therefore, it is recommended that the Service delete major boating use areas from its preferred alternative for the proposed Stone Lakes Refuge. Specific boating

areas that will be excluded from the Service proposal include Delta Slough, Locke Slough, Snodgrass Slough, Meadows Slough, the Mokelumne River, and Lost Slough.

3. Concern:

"The creation of wetlands will encourage habitat for mosquitos which transmit diseases such as malaria and encephalitis. The U.S. Fish and Wildlife Service will not permit adequate control of these disease vectors on land that it owns."

Response:

The Service supports the need to establish a vector control program that will protect human health and well-being. Control programs should be designed to maintain environmental quality and conserve and protect wildlife resources. The Sacramento-Yolo Vector Control District (District) supports the preservation of existing wetland areas, and the creation of new and restoration of existing wetland areas that are designed, constructed, operated and maintained in such a manner as to minimize mosquito related impacts.

In that regard, it is recommended that the Service and the District agree to work cooperatively to establish a "memorandum of understanding" (MOU) that will define standard operating procedures for the control of mosquitos on Stone Lakes Refuge. The MOU will specifically address the following:

- 1.) preparation and implementation of a comprehensive wetlands management program, including operation and management of water, waterways, and vegetation;
- 2.) design criteria for construction of new wetlands to minimize mosquito habitat;
- 3.) an ongoing mosquito vector monitoring program within the refuge;
- 4.) establishment of mutually agreeable threshold standards for timing various mosquito vector control methods;
- 5.) development of an integrated pest management approach that utilizes biological and chemical control for vector abatement;
- 6.) provisions for ground and air application of approved chemical control agents where biological or water management controls are inadequate;

- 7.) access by District employees within the refuge to monitor, control, and abate mosquitos;
- 8.) extent of Service review and approval required prior to District undertaking abatement activities within the refuge;
- 9.) funding requirements for additional mosquito monitoring and control;

It is anticipated that the aforementioned MOU and wetlands management program will result in acceptable levels of mosquito abatement. The District and the Service will continue to work cooperatively to incorporate new scientific and technical information into the program to ensure abatement objectives are being met.

4. Concern:

"The reintroduction of threatened or endangered plant and animal species on Stone Lakes Refuge will result in exposure of adjacent agricultural lands to additional regulations if reintroduced wildlife moves off the refuge onto private lands."

Response:

It is recommended that the Service not initiate reintroduction of federally listed threatened or endangered species within the Stone Lakes project area. Consistent with Service policy, wildlife populations management, within the Stone Lakes project area, will to the extent possible contribute to the widest possible natural diversity of indigenous fish, wildlife, and habitat types. Protection, enhancement, and recovery of candidate species that are under review for federal listing will receive priority consideration in the establishment of refuge objectives and management.

Currently, there are no federally listed threatened or endangered species that would be candidates for reintroduction within the Stone Lakes project area. Documented habitat for the Valley elderberry longhorn beetle presently occurs throughout the area. Foraging and roosting habitat exists for the Aleutian Canada goose, however use has not been recorded within the project area. In any case, reintroduction would not be necessary.

5. **Concern:**

"Lands acquired by the U.S. Fish and Wildlife Service will be taken off the tax rolls resulting in reduced or lost tax revenues to Sacramento County."

Response:

Under provision of the Refuge Revenue Sharing Act (Public Law 95-469), the Service would annually make payments to counties to offset tax revenues lost as a result of fee title acquisition of private property. This law states that the Secretary of the Interior shall pay to each county in which lands are owned in fee title by the United States and administered by the Service. Payments are based on one of three possible formulas, which ever results in the greater payment. Generally, the Service pays on the basis of an amount equal to three-fourths of one percent of the fair market value on lands that the Service purchases. The Act also requires a reappraisal of Service lands every five years to ensure that payment to local governments remain equitable.

The Refuge Revenue Sharing Act establishes a fund that consists of net income from the sale of products or privileges (timber, grazing, oil and gas, commercial recreation, etc.) on all refuges nationwide. If the revenues received during any year do not equal the maximum amount payable to the county, Congress may appropriate supplemental funds to compensate local governments for any amount of the shortfall which results from deficiencies in the fund.

Table 1 lists the recent history of payments to counties as a result of deficiencies in the revenue sharing fund. Prior to 1980, payments were usually at 100 percent.

Table 1. Revenue Sharing Payments to Counties, 1980-1992.

<u>Fiscal Year</u>	<u>Percent Paid</u>
1980	100
1981	88
1982	91
1983	77
1984	64
1985	60
1986	60
1987	59
1988	71
1989	78

1990
1991
1992

81
92
95 estimate

Recent estimates based on land sales in the Sacramento Valley indicate the Service would be compensating counties for lost property tax revenues if it pays approximately 80%. To the extent that this estimate holds true in Sacramento County, payments less than this figure would result in decreased revenues; payments greater than this figure would result in increased revenues.

Only those properties which the Service acquires in fee title through purchase, transfer or donation would be covered under the Refuge Revenue Sharing Act.

6. Concern:

"Refuge operations will result in additional restrictions on the ability of farmers to apply pesticides and herbicides."

Response:

In consultation with adjacent landowners, it is recommended that the Service establish appropriate buffers on Service lands wherever wetland habitats are established next to agricultural lands. Buffers will be managed to avoid conflicts with adjacent landowners. The Service would consult with the Sacramento County agricultural commissioner's office during the development of subsequent refuge management plans to establish appropriate buffer locations, widths, and management guidelines. Existing federal, state, and local regulations regarding the use of pesticides and herbicides will apply.

7. Concern:

"The proposed Stone Lakes Refuge is too large and will take too much prime farmland out of production."

Response:

It is recommended that the Service reduce the size of the Stone Lakes National Wildlife Refuge to approximately 9,000 acres of land. It is also recommended that the Service establish a "cooperative wildlife management area" of approximately 9,000 acres of additional land. This is a reduction in size from the previous

Service's draft preferred Alternative C1 which recommended the establishment of a national wildlife refuge that would encompass approximately 22,000 acres of land.

It is anticipated that these proposed revisions to the project boundary and acquisition programs will significantly reduce potential impacts to agricultural practices in south Sacramento County, including the amount of prime farmland that would be taken out of production.

Deletion of Significant Agricultural Areas From the Proposal

Proposed adjustments in the project boundary will eliminate approximately 2,000 acres of prime farmland from the project by excluding the McCormack-Williamson Tract.

Establishment of the Stone Lakes National Wildlife Refuge

It is recommended that the Service seek to acquire a sufficient interest in lands in the Stone Lakes project area to accomplish refuge goals. Service interest should focus on those lands necessary to enhance and restore wetland complexes and associated upland buffers in the area of Upper Beach Lake, Lower Beach Lake, North Stone Lake and South Stone Lake. Public use objectives, eg. wildlife observation, environmental education, and nature interpretation, would be emphasized north of Hood-Franklin Road. Migratory bird foraging and sanctuary requirements would be emphasized south of Hood-Franklin Road

It is anticipated that the wildlife refuge area will encompass approximately 5,000 acres of land that would be managed through cooperative agreements with existing public land owners. An additional 3,500 acres would be acquired through land purchases, conservation easements, or cooperative agreements with landowners. The Service would acquire land from willing sellers.

Establishment of a Cooperative Wildlife Management Area

In order to mitigate adverse impacts related to the preferred alternative C1, the Service will rely on cooperative agreements and the purchase of conservation easements to protect wildlife and habitat values on approximately 9,000 acres of land, most of which is situated within the 100 year floodplain. This area would serve as an important link in the establishment of a wildlife corridor between natural habitats in the Beach/Stone Lakes area and the Cosumnes River floodplain and provide protection for vernal pool habitat.

A primary objective of the "cooperative wildlife management area" will be to keep the land in private ownership and agricultural production. Within

the "cooperative wildlife management area", the Service would provide advice and technical assistance to landowners with respect to management, restoration and enhancement of agriculture lands so as to benefit wildlife.

Various types of easement agreements will also assist in accomplishing these objectives. For example, through a conservation easement program, landowners would retain title to the land and the Service would purchase minimum property rights needed to preserve and protect habitat quality. Generally, the Service would pay between 50% and 70% of the appraised fair market value of the property for perpetual conservation easements.

Fee title acquisition would occur only when initiated by the landowner. Fee title acquisitions within the "cooperative wildlife management area" would be considered by the Service on a case by case basis and would require approval by the Sacramento County Board of Supervisors.

8. Concern:

"What is the role of the U.S. Fish and Wildlife Service and the proposed Stone Lakes Refuge with respect to other private and public conservation and open space interests?"

Response:

The goals of Stone Lakes Refuge are directed toward the preservation and restoration of Central Valley natural habitats and wildlife populations. **Realization of refuge goals will be accomplished through an active, ongoing program that seeks to forge cooperative partnerships with landowners, private organizations, and county, state, and federal agencies. It is recommended that the Service provide financial incentives, technical assistance and education and outreach.** An important component of the refuge project would be cooperative management agreements with Sacramento County and the State of California.

Currently, the Service participates as a member of the Central Valley Habitat Joint Venture to implement goals of the North American Waterfowl Management Plan. The Stone Lakes project is one of several projects that have been endorsed by the Joint Venture. Members of the Joint Venture include The Nature Conservancy, Ducks Unlimited, California Waterfowl Association, Defenders of Wildlife, National Audubon Society, and The Trust for Public Land as well as several public agencies. Other organizations that may participate in the Stone Lakes project include the American Farmland Trust and local land trusts, such as the newly formed North Delta Conservancy and the Sacramento Valley Open Space Conservancy.

9. Concern:

"When will the U.S. Fish and Wildlife Service make decisions regarding the establishment of Stone Lakes Refuge?"

Response:

The Service is currently in the process of preparing the final Environmental Impact Statement (Statement) for the proposed Stone Lakes Refuge. The final Statement will address numerous concerns and issues raised by various agencies, groups, and individuals during the public comment period. The Service will prepare a draft Land Protection Plan (LPP) in conjunction with the final statement.

The draft LPP will describe the method of protection and relative priority of lands within the proposed acquisition boundary. The draft LPP and final Statement will be distributed for a thirty day public review period. These reports are scheduled to be released by April, 1992. A formal Record of Decision signed by the Regional Director will follow, which will document final decisions regarding the establishment of the refuge.

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**Appendix F. Common and Scientific Names of Wildlife
Species Mentioned in the Text**

C-057273

F-2



Appendix F. Common and Scientific Names of Wildlife Species Mentioned in the Text

Common Name	Scientific Name
Insects	
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>
Delta green ground beetle	<i>Elaphrus viridus</i>
Sacramento anthicid beetle	<i>Anthicus sacramento</i>
	<i>Linderiella occidentalis</i>
Amphibians	
California tiger salamander	<i>Ambystoma tigrinum</i>
Western spadefoot	<i>Scaphiopus hammondi</i>
Western toad	<i>Bufo boreas</i>
Pacific treefrog	<i>Hyla regilla</i>
Bullfrog	<i>Rana catesbeiana</i>
Reptiles	
Western fence lizard	<i>Sceloporus occidentalis</i>
California horned lizard	<i>Phrynosoma coronatum frontale</i>
Northern alligator lizard	<i>Gerrhonotus coeruleus</i>
Gopher snake	<i>Pituophis melanoleucus</i>
Common kingsnake	<i>Lampropeltis getulus</i>
Common garter snake	<i>Thamnophis sirtalis</i>
Giant garter snake	<i>Thamnophis couchi gigas</i>
Western yellow-bellied racer	<i>Coluber constrictor mormon</i>
Birds	
Pied-billed grebe	<i>Podilymbus podiceps</i>
Eared grebe	<i>Podiceps nigricollis</i>
American white pelican	<i>Pelecanus erythrorhynchos</i>
Double-crested cormorant	<i>Phalacrocorax auritus</i>
American bittern	<i>Botaurus lentiginosus</i>
Great blue heron	<i>Ardea herodias</i>

Appendix F. Continued

Common Name	Scientific Name
Great egret	<i>Casmerodius albus</i>
Green-backed heron	<i>Butorides striatus</i>
White-faced ibis	<i>Plegadis chihi</i>
Tundra swan	<i>Cygnus columbianus</i>
Greater white-fronted goose	<i>Anser Albifrons</i>
Snow goose	<i>Chen caerulescens</i>
Ross' goose	<i>Chen rossii</i>
Canada goose	<i>Branta canadensis</i>
Aleutian Canada goose	<i>Branta canadensis leucopareia</i>
Wood duck	<i>Aix sponsa</i>
Green-winged teal	<i>Anas crecca</i>
Mallard	<i>Anas platyrhynchos</i>
Northern pintail	<i>Anas acuta</i>
Cinnamon teal	<i>Anas cyanoptera</i>
Northern shoveler	<i>Anas clypeata</i>
American wigeon	<i>Anas americana</i>
Common merganser	<i>Mergus merganser</i>
Ruddy duck	<i>Oxyura jamaicensis</i>
Turkey vulture	<i>Cathartes aura</i>
Black-shouldered kite	<i>Elanus caeruleus</i>
Bald eagle	<i>Haliaeetus leucocephalus</i>
Northern harrier	<i>Circus cyaneus</i>
Sharp-shinned hawk	<i>Accipiter striatus</i>
Cooper's hawk	<i>Accipiter cooperii</i>
Red-shouldered hawk	<i>Buteo lineatus</i>
Swainson's hawk	<i>Buteo swainsoni</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Ferruginous hawk	<i>Buteo regalis</i>
Golden eagle	<i>Aquila chrysaetos</i>
American kestrel	<i>Falco sparverius</i>
Peregrine falcon	<i>Falco peregrinus</i>
Prairie falcon	<i>Falco mexicanus</i>
Ring-necked pheasant	<i>Phasianus colchicus</i>
California quail	<i>Callipepla californica</i>
Virginia rail	<i>Rallus limicola</i>
Sora	<i>Porzana carolina</i>
Common moorhen	<i>Gallinula chloropus</i>
American coot	<i>Fulica americana</i>
Sandhill crane	<i>Grus canadensis</i>

Appendix F. Continued

Common Name	Scientific Name
Killdeer	<i>Charadrius vociferus</i>
Mountain plover	<i>Charadrius montanus</i>
Spotted sandpiper	<i>Actitis macularia</i>
Long-billed curlew	<i>Numenius americanus</i>
Least sandpiper	<i>Calidris minutilla</i>
California gull	<i>Larus californicus</i>
Mourning dove	<i>Zenaida macroura</i>
Yellow-billed cuckoo	<i>Coccyzus americanus</i>
Common barn owl	<i>Tyto alba</i>
Western screech-owl	<i>Otus kennicottii</i>
Great horned owl	<i>Bubo virginianus</i>
Burrowing owl	<i>Athene cunicularia</i>
Long-eared owl	<i>Asio otus</i>
Short-eared owl	<i>Asio flammeus</i>
Anna's hummingbird	<i>Calypte anna</i>
Belted kingfisher	<i>Ceryle alcyon</i>
Lewis' woodpecker	<i>Melanerpes lewis</i>
Acorn woodpecker	<i>Melanerpes formicivorus</i>
Nuttall's woodpecker	<i>Picoides nuttallii</i>
Northern flicker	<i>Colaptes auratus</i>
Western wood-pewee	<i>Contopus sordidulus</i>
Willow flycatcher	<i>Empidonax traillii</i>
Black phoebe	<i>Sayornis nigricans</i>
Ash-throated flycatcher	<i>Myiarchus cinerascens</i>
Western kingbird	<i>Tyrannus verticalis</i>
Horned lark	<i>Eremophila alpestris</i>
Purple martin	<i>Progne subis</i>
Tree swallow	<i>Tachycineta bicolor</i>
Violet-green swallow	<i>Tachycineta thalassina</i>
Scrub jay	<i>Aphelocoma coerulescens</i>
Yellow-billed magpie	<i>Pica nuttalli</i>
American crow	<i>Corvus brachyrhynchos</i>
Plain titmouse	<i>Parus inornatus</i>
Red-breasted nuthatch	<i>Sitta canadensis</i>
White-breasted nuthatch	<i>Sitta carolinensis</i>
Brown creeper	<i>Certhia americana</i>
Bewick's wren	<i>Thryomanes bewickii</i>
Golden-crowned kinglet	<i>Regulus satrapa</i>
Western bluebird	<i>Sialia mexicana</i>

Appendix F. Continued

Common Name	Scientific Name
American pipit	<i>Anthus spinoletta</i>
Loggerhead shrike	<i>Lanius ludovicianus</i>
European starling	<i>Sturnus vulgaris</i>
Hutton's vireo	<i>Vireo huttoni</i>
Warbling vireo	<i>Vireo gilvus</i>
Yellow warbler	<i>Dendroica petechia</i>
Yellow-rumped warbler	<i>Dendroica coronata</i>
Black-throated gray warbler	<i>Dendroica nigrescens</i>
MacGillivray's warbler	<i>Oporornis tolmiei</i>
Wilson's warbler	<i>Wilsonia pusilla</i>
Yellow-breasted chat	<i>Icteria virens</i>
Black-headed grosbeak	<i>Pheucticus melanocephalus</i>
Blue grosbeak	<i>Guiraca caerulea</i>
Luzuli bunting	<i>Passerina amoena</i>
Rufous-sided towhee	<i>Pipilo erythrophthalmus</i>
Brown towhee	<i>Pipilo fuscus</i>
Savannah sparrow	<i>Passerculus sandwichensis</i>
Song sparrow	<i>Melospiza melodia</i>
Red-winged blackbird	<i>Agelaius phoeniceus</i>
Tricolored blackbird	<i>Agelaius tricolor</i>
Western meadowlark	<i>Sturnella neglecta</i>
Brewer's blackbird	<i>Euphagus cyanocephalus</i>
Brown-headed cowbird	<i>Molothrus ater</i>
Northern oriole	<i>Icterus galbula</i>
House finch	<i>Carpodacus mexicanus</i>
Lesser goldfinch	<i>Carduelis psaltria</i>
American goldfinch	<i>Carduelis tristis</i>

Mammals

Virginia opossum	<i>Didelphis virginiana</i>
Broad-footed mole	<i>Scapanus latimanus</i>
Brush rabbit	<i>Sylvilagus bachmani</i>
Desert cottontail	<i>Sylvilagus audubonii</i>
Black-tailed hare	<i>Lepus californicus</i>
California ground squirrel	<i>Spermophilus beecheyi</i>
Western gray squirrel	<i>Sciurus griseus</i>
Botta's pocket gopher	<i>Thomomys bottae</i>
Beaver	<i>Castor canadensis</i>

Appendix F. Continued

Common Name	Scientific Name
Dusky-footed woodrat	<i>Neotoma fuscipes</i>
California vole	<i>Microtus californicus</i>
Muskrat	<i>Ondatra zibethicus</i>
Coyote	<i>Canis latrans</i>
Gray fox	<i>Urocyon cinereoargenteus</i>
Ringtail	<i>Bassariscus astutus</i>
Raccoon	<i>Procyon lotor</i>
American badger	<i>Taxidea taxus</i>
Striped skunk	<i>Mephitis mephitis</i>
River otter	<i>Lutra canadensis</i>
Black-tailed deer	<i>Odocoileus hemionus</i>

**Appendix G. Common and Scientific Names of Plant
Species Mentioned in the Text**

G-1

C-057279

G-2

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C-057280

Appendix G. Common and Scientific Names of Plants Mentioned in the Text

Common Name

Arroyo willow
Broadleafed cattail
Brodiaes
Bromes
Button-bush
California blackberry
California black walnut
California box elder
California grape vine
California mugwort
California sycamore
Common tule
Common water-hyacinth
Coyote thistle
Creeping wildrye
Curly dock
Downingia
Dutchman's pipe
Elderberry
Eucalyptus
Farewell-to-spring
Field owl's clover
Filaree
Floating seedbox
Flowering quillwort
Fremont cottonwood
Fremont's goldfield
Goodding's willow
Himalaya berry
Knotweed
Lupine
Meadowfoam
Mediterranean barley
Oregon ash
Owl's clover

Scientific Name

Salix lasiolepis
Typha latifolia
Brodiaea spp.
Bromus spp.
Cephalanthus occidentalis
Rubus vitifolius
Juglans hindsii
Acer negundo var. *californica*
Vitis californica
Artemisia douglasiana
Platanus racemosa
Scirpus acutus
Eichhornia crassipes
Eryngium spp.
Elymus triticoides
Rumex crispus
Downingia spp.
Aristolochia californica
Sambucus mexicana
Eucalyptus spp.
Clarkia spp.
Orthocarpus campestris
Erodium spp.
Ludwigia peploides
Lilaea scilloides
Populus fremontii
Lasthenia fremontii
Salix gooddingii
Rubus procerus
Polygonum spp.
Lupinus spp.
Limnanthes douglasii
Hordeum hystrix
Fraxinus oregana
Orthocarpus spp.

Appendix G. Continued

Common Name

Scientific Name

Pacific foxtail	<i>Alopecurus saccatus</i>
Poison-oak	<i>Toxicodendron diversiloba</i>
Purple needlegrass	<i>Stipa pulchra</i>
Red willow	<i>Salix laevigata</i>
Sandbar willow	<i>Salix sessilifolia</i>
Smartweed	<i>Polygonum</i> spp.
Spikerush	<i>Eleocharis</i> spp.
Stinging nettle	<i>Urtica holosericea</i>
Tricolored monkey flower	<i>Mimulus tricolor</i>
Valley oak	<i>Quercus lobata</i>
Water-milfoil	<i>Myriophyllum</i> spp.
Whitehead navarretia	<i>Navarretia leucocephala</i>
White-stemmed raspberry	<i>Rubus leucodermis</i>
Wild oat	<i>Avena</i> spp.
Yellow willow	<i>Salix lasiandra</i>
Wild rose	<i>Rosa californica</i>

Appendix H. Methodology for Determining the Acquisition Costs for Establishing the Stone Lakes NWR

H-2

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Appendix H. Methodology For Determining the Acquisition Costs For Establishing the Stone Lakes NWR

The fee and easement value of each alternative was estimated by using the average value of farm and ranch land in California, by land use and region. The "California Farm Land Values" 1990 Report, released June 12, 1990, prepared by the California Agricultural Statistics Service, California Department of Agriculture, was used to develop the acquisition estimates. The report identifies land use for the North and Central, Central Coast, Sacramento Valley, and Southern California regions. The report lists trends by various agricultural land use from 1981 to 1990. A detailed analysis of the Stone Lakes area has not been completed. Agricultural land use values developed from the Sacramento Valley were used as the low estimate. The Central Coast and Southern California regions were used for the high value.

Property within the study area is being purchased for conversion from lower value uses to higher value uses (i.e. irrigated pasture and row crop land to vineyards). In addition, certain properties within the study area are suitable for industrial or residential development. The estimates of value presented here do not reflect properties purchased for conversion to higher use.

Acreages used for this value estimation were taken from Tables 5J-3, 5J-8, 5J-10, 5J-12, 5J-14, and 5J-16 in the final EIS. These tables list the estimated conversion of agricultural land to wildlife habitat. These acreages are estimates and may not reflect actual acquired acreage.

Under the Mitigated Preferred Alternative, estimated acquisition costs range from \$10.2 million to \$20.3 million. Over the 15 year acquisition period, this estimate could easily double.

Estimated Cost of Fee Acquisition of Alternative B
(Low)

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Landtype
Field Crops				
Alfalfa Hay	257	49	\$2,000	\$98,000
Corn, field	1,357	260	\$2,000	\$520,000
Wheat	574	110	\$2,000	\$220,000
Barley	30	6	\$2,000	\$12,000
Mixed Hay and Grain	119	23	\$2,000	\$46,000
Pasture	1,257	241	\$1,800	\$433,800
Range	2,360	453	\$1,000	\$453,000
Rice	134	26	\$1,800	\$46,800
Safflower	181	35	\$2,000	\$70,000
Sorghum	46	8	\$2,000	\$16,000
Sugar Beets	385	74	\$2,000	\$148,000
Vegetable Crops				
Tomatoes	193	37	\$2,600	\$96,200
Natural Habitat		1,036	\$1,000	\$1,036,000
Total				\$3,195,800

**Estimated Cost of Fee Acquisition of Alternative C1
(Low)**

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Landtype
Field Crops				
Alfalfa Hay	437	153	\$2,000	\$306,000
Corn, field	3,940	1,379	\$2,000	\$2,758,000
Wheat	1,356	474	\$2,000	\$948,000
Barley	71	26	\$2,000	\$52,000
Mixed Hay and Grain	119	42	\$2,000	\$84,000
Pasture	2,250	787	\$1,800	\$1,416,600
Range	2,896	1,014	\$1,000	\$1,014,000
Rice	134	47	\$1,800	\$84,600
Safflower	485	170	\$2,000	\$340,000
Sorghum	46	16		
Sugar Beets	867	303	\$2,000	\$606,000
Vegetable Crops				
Tomatoes	158	55	\$2,600	\$143,000
Natural Habitat		1,413	\$1,000	\$1,413,000
Total				\$9,165,200

Estimated Cost of Fee Acquisition of Alternative C
(Low)

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Landtype
Field Crops				
Alfalfa Hay	437	162	\$2,000	\$324,000
Corn, field	4,043	1,496	\$2,000	\$2,992,000
Wheat	1,635	605	\$2,000	\$1,210,000
Barley	86	31	\$2,000	\$62,000
Mixed Hay and Grain	119	44	\$2,000	\$88,000
Pasture	2,407	891	\$1,800	\$1,603,800
Range	3,010	1,114	\$1,000	\$1,114,000
Rice	134	49	\$1,800	\$88,200
Safflower	742	275	\$2,000	\$550,000
Sorghum	46	17	\$2,000	\$34,000
Sugar Beets	1,051	389	\$2,000	\$778,000
Vegetable Crops				
Tomatoes	524	194	\$2,600	\$504,400
Natural Habitat		1,499	\$1,000	\$1,499,000
Total				\$10,523,400

Estimated Cost of Fee Acquisition of Alternative D
(Low)

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Landtype
Field Crops				
Alfalfa Hay	1,060	339	\$2,000	\$678,000
Corn, field	4,177	1,337	\$2,000	\$2,674,000
Corn, silage	903	289	\$2,000	\$578,000
Wheat	2,490	797	\$2,000	\$1,594,000
Barley	131	42	\$2,000	\$84,000
Mixed Hay and Grain	144	46	\$2,000	\$92,000
Pasture	6,430	2,058	\$1,800	\$3,704,400
Range	11,332	3,626	\$1,000	\$3,626,000
Rice	1,863	597	\$1,800	\$1,074,600
Safflower	1,026	329	\$2,000	\$658,000
Sorghum	313	100	\$2,000	\$200,000
Sugar Beets	1,521	486	\$2,000	\$972,000
Vegetable Crops				
Asparagus	26	8	\$2,600	\$20,800
Tomatoes	806	258	\$2,600	\$670,800
Seed Crops				
Sudan	91	30	\$2,600	\$78,000
Natural Habitat		1,499	\$1,000	\$1,499,000
Total				\$18,203,600

Estimated Cost of Fee Acquisition of Alternative E
(Low)

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Landtype
Field Crops				
Alfalfa Hay	2,197	572	\$2,000	\$1,144,000
Corn, field	8,280	2,153	\$2,000	\$4,306,000
Corn, silage	2,169	564	\$2,000	\$1,128,000
Wheat	4,374	1,137	\$2,000	\$2,274,000
Barley	230	60	\$2,000	\$120,000
Mixed Hay and Grain	227	59	\$2,000	\$118,000
Pasture	10,030	2,609	\$1,800	\$4,696,200
Range	12,890	3,352	\$1,000	\$3,352,000
Rice	2,472	643	\$1,800	\$1,157,400
Safflower	1,423	370	\$2,000	\$740,000
Sorghum	402	104	\$2,000	\$208,000
Sugar Beets	1,857	482	\$2,000	\$964,000
Vegetable Crops				
Asparagus	28	7	\$2,600	\$18,200
Tomatoes	1,577	410	\$2,600	\$1,066,000
Peppers	388	101	\$2,600	\$262,600
Seed Crops				
Sudan	572	149	\$2,600	\$387,400
Natural Habitat		2,666	\$1,000	\$2,666,000
Total				\$24,607,800

Estimated Cost of Fee Acquisition of MPA
(Low)

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Land Type
Field Crops				
Alfalfa Hay	126	8	\$2,000	\$16,000
Corn, field	2,889	815	\$2,000	\$1,630,000
Wheat	900	360	\$2,000	\$720,000
Barley	48	19	\$2,000	\$38,000
Mixed Hay and Grain	70	21	\$2,000	\$42,000
Pasture	2,154	176	\$1,800	\$316,800
Range	1,826	690	\$1,000	\$690,000
Rice	135	98	\$1,800	\$176,400
Safflower	297	18	\$2,000	\$36,000
Sugar Beets	857	202	\$2,000	\$404,000
Vegetable Crops				
Tomatoes	115	89	\$2,600	\$231,400
Natural Habitat		480	\$1,000	\$480,000
Total				\$4,780,600

Estimated Cost of Fee Acquisition of Alternative B
(Mean)

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Landtype
Field Crops				
Alfalfa Hay	257	49	\$2,850	\$139,650
Corn, field	1,357	260	\$2,850	\$741,000
Wheat	574	110	\$2,850	\$313,500
Barley	30	6	\$2,850	\$17,100
Mixed Hay and Grain	119	23	\$2,850	\$65,550
Pasture	1,257	241	\$2,300	\$554,300
Range	2,360	453	\$1,400	\$634,200
Rice	134	26	\$1,950	\$50,700
Safflower	181	35	\$2,850	\$99,750
Sorghum	46	8	\$2,850	\$22,800
Sugar Beets	385	74	\$2,850	\$210,900
Vegetable Crops				
Tomatoes	193	37	\$5,350	\$197,950
Natural Habitat		1,036	\$2,200	\$2,279,200
Total				\$5,326,600

Estimated Cost of Fee Acquisition of Alternative C1
(Mean)

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Landtype
Field Crops				
Alfalfa Hay	437	153	\$2,850	\$436,050
Corn, field	3,940	1,379	\$2,850	\$3,930,150
Wheat	1,356	474	\$2,850	\$1,350,900
Barley	71	26	\$2,850	\$74,100
Mixed Hay and Grain	119	42	\$2,850	\$119,700
Pasture	2,250	787	\$2,300	\$1,810,100
Range	2,896	1,014	\$1,400	\$1,419,600
Rice	134	47	\$1,950	\$91,650
Safflower	485	170	\$2,850	\$484,500
Sorghum	46	16	\$2,850	\$45,600
Sugar Beets	867	303	\$2,850	\$863,550
Vegetable Crops				
Tomatoes	158	55	\$5,350	\$294,250
Natural Habitat		1,413	\$2,200	\$3,108,600
Total				\$14,028,750

**Estimated Cost of Fee Acquisition of Alternative C
(Mean)**

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Landtype
Field Crops				
Alfalfa Hay	437	162	\$2,850	\$461,700
Corn, field	4,043	1,496	\$2,850	\$4,263,600
Wheat	1,635	605	\$2,850	\$1,724,250
Barley	86	31	\$2,850	\$88,350
Mixed Hay and Grain	119	44	\$2,850	\$125,400
Pasture	2,407	891	\$2,300	\$2,049,300
Range	3,010	1,114	\$1,400	\$1,559,600
Rice	134	49	\$1,950	\$95,550
Safflower	742	275	\$2,850	\$783,750
Sorghum	46	17	\$2,850	\$48,450
Sugar Beets	1,051	389	\$2,850	\$1,108,650
Vegetable Crops				
Tomatoes	524	194	\$5,350	\$1,037,900
Natural Habitat		1,499	\$2,200	\$3,297,800
Total				\$16,182,600

Estimated Cost of Fee Acquisition of Alternative D
(Mean)

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Landtype
Field Crops				
Alfalfa Hay	1,060	339	\$2,850	\$966,150
Corn, field	4,177	1,337	\$2,850	\$3,810,450
Corn, silage	903	289	\$2,850	\$823,650
Wheat	2,490	797	\$2,850	\$2,271,450
Barley	131	42	\$2,850	\$119,700
Mixed Hay and Grain	144	46	\$2,850	\$131,100
Pasture	6,430	2,058	\$2,300	\$4,733,400
Range	11,332	3,626	\$1,400	\$5,076,400
Rice	1,863	597	\$1,950	\$1,164,150
Safflower	1,026	329	\$2,850	\$937,650
Sorghum	313	100	\$2,850	\$285,000
Sugar Beets	1,521	486	\$2,850	\$1,385,100
Vegetable Crops				
Asparagus	26	8	\$5,350	\$42,800
Tomatoes	806	258	\$5,350	\$1,380,300
Seed Crops				
Sudan	91	30	\$3,150	\$94,500
Natural Habitat		1,499	\$2,200	\$3,297,800
Total				\$26,519,600

Estimated Cost of Fee Acquisition of Alternative E
(Mean)

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Landtype
Field Crops				
Alfalfa Hay	2,197	572	\$2,850	\$1,630,200
Corn, field	8,280	2,153	\$2,850	\$6,136,050
Corn, silage	2,169	564	\$2,850	\$1,607,400
Wheat	4,374	1,137	\$2,850	\$3,240,450
Barley	230	60	\$2,850	\$171,000
Mixed Hay and Grain	227	59	\$2,850	\$168,150
Pasture	10,030	2,609	\$2,300	\$6,000,700
Range	12,890	3,352	\$1,400	\$4,692,800
Rice	2,472	643	\$1,950	\$1,253,850
Safflower	1,423	370	\$2,850	\$1,054,500
Sorghum	402	104	\$2,850	\$296,400
Sugar Beets	1,857	482	\$2,850	\$1,373,700
Vegetable Crops				
Asparagus	28	7	\$5,350	\$37,450
Tomatoes	1,577	410	\$5,350	\$2,193,500
Peppers	388	101	\$5,350	\$540,350
Seed Crops				
Sudan	572	149	\$3,150	\$469,350
Natural Habitat		2,666	\$2,200	\$5,865,200
Total				\$36,731,050

Estimated Cost of Fee Acquisition of MPA
(Mean)

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Land Type
Field Crops				
Alfalfa Hay	126	8	\$2,850	\$22,800
Corn, field	2,889	815	\$2,850	\$2,322,750
Wheat	900	360	\$2,850	\$1,026,000
Barley	48	19	\$2,850	\$54,150
Mixed Hay and Grain	70	21	\$2,850	\$59,850
Pasture	2,154	176	\$2,300	\$404,800
Range	1,826	690	\$1,400	\$966,000
Rice	135	98	\$1,950	\$191,100
Safflower	297	18	\$2,850	\$51,300
Sugar Beets	857	202	\$2,850	\$575,700
Vegetable Crops				
Tomatoes	115	89	\$5,350	\$476,150
Natural Habitat		480	\$2,200	\$1,056,000
Total				\$7,206,600

**Estimated Cost of Fee Acquisition of Alternative B
(High)**

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Landtype
Field Crops				
Alfalfa Hay	257	49	\$3,700	\$181,300
Corn, field	1,357	260	\$3,700	\$962,000
Wheat	574	110	\$3,700	\$407,000
Barley	30	6	\$3,700	\$22,200
Mixed Hay and Grain	119	23	\$3,700	\$85,100
Pasture	1,257	241	\$2,800	\$674,800
Range	2,360	453	\$1,800	\$815,400
Rice	134	26	\$2,100	\$54,600
Safflower	181	35	\$3,700	\$129,500
Sorghum	46	8	\$3,700	\$29,600
Sugar Beets	385	74	\$3,700	\$273,800
Vegetable Crops				
Tomatoes	193	37	\$8,100	\$299,700
Natural Habitat		1,036	\$3,400	\$3,522,400
Total				\$7,457,400

Easement acreage reduction in Alternative B = 223 acres.

**Estimated Cost of Fee Acquisition of Alternative C1
(High)**

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Landtype
Field Crops				
Alfalfa Hay	437	153	\$3,700	\$566,100
Corn, field	3,940	1,379	\$3,700	\$5,102,300
Wheat	1,356	474	\$3,700	\$1,753,800
Barley	71	26	\$3,700	\$96,200
Mixed Hay and Grain	119	42	\$3,700	\$155,400
Pasture	2,250	787	\$2,800	\$2,203,600
Range	2,896	1,014	\$1,800	\$1,825,200
Rice	134	47	\$2,100	\$98,700
Safflower	485	170	\$3,700	\$629,000
Sorghum	46	16	\$3,700	\$59,200
Sugar Beets	867	303	\$3,700	\$1,121,100
Vegetable Crops				
Tomatoes	158	55	\$8,100	\$445,500
Natural Habitat		1,413	\$3,400	\$4,804,200
Total				\$18,860,300

Easement acreage reduction in Alternative C1 = 485 acres.

Estimated Cost of Fee Acquisition of Alternative C
(High)

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Landtype
Field Crops				
Alfalfa Hay	437	162	\$3,700	\$599,400
Corn, field	4,043	1,496	\$3,700	\$5,535,200
Wheat	1,635	605	\$3,700	\$2,238,500
Barley	86	31	\$3,700	\$114,700
Mixed Hay and Grain	119	44	\$3,700	\$162,800
Pasture	2,407	891	\$2,800	\$2,494,800
Range	3,010	1,114	\$1,800	\$2,005,200
Rice	134	49	\$2,100	\$102,900
Safflower	742	275	\$3,700	\$1,017,500
Sorghum	46	17	\$3,700	\$62,900
Sugar Beets	1,051	389	\$3,700	\$1,439,300
Vegetable Crops				
Tomatoes	524	194	\$8,100	\$1,571,400
Natural Habitat		1,499	\$3,400	\$5,096,600
Total				\$21,841,800

Easement acreage reduction in Alternative C = 598 acres.

Estimated Cost of Fee Acquisition of Alternative D
(High)

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Landtype
Field Crops				
Alfalfa Hay	1,060	339	\$3,700	\$1,254,300
Corn, field	4,177	1,337	\$3,700	\$4,946,900
Corn, silage	903	289	\$3,700	\$1,069,300
Wheat	2,490	797	\$3,700	\$2,948,900
Barley	131	42	\$3,700	\$155,400
Mixed Hay and Grain	144	46	\$3,700	\$170,200
Pasture	6,430	2,058	\$2,800	\$5,762,400
Range	11,332	3,626	\$1,800	\$6,526,800
Rice	1,863	597	\$2,100	\$1,253,700
Safflower	1,026	329	\$3,700	\$1,217,300
Sorghum	313	100	\$3,700	\$370,000
Sugar Beets	1,521	486	\$3,700	\$1,798,200
Vegetable Crops				
Asparagus	26	8	\$8,100	\$64,800
Tomatoes	806	258	\$8,100	\$2,089,800
Seed Crops				
Sudan	91	30	\$3,700	\$111,000
Natural Habitat		1,499	\$3,400	\$5,096,600
Total				\$34,835,600

Easement acreage reduction in Alternative D = 1203 acres.

Estimated Cost of Fee Acquisition of Alternative E
(High)

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Landtype
Field Crops				
Alfalfa Hay	2,197	572	\$3,700	\$2,116,400
Corn, field	8,280	2,153	\$3,700	\$7,966,100
Corn, silage	2,169	564	\$3,700	\$2,086,800
Wheat	4,374	1,137	\$3,700	\$4,206,900
Barley	230	60	\$3,700	\$222,000
Mixed Hay and Grain	227	59	\$3,700	\$218,300
Pasture	10,030	2,609	\$2,800	\$7,305,200
Range	12,890	3,352	\$1,800	\$6,033,600
Rice	2,472	643	\$2,100	\$1,350,300
Safflower	1,423	370	\$3,700	\$1,369,000
Sorghum	402	104	\$3,700	\$384,800
Sugar Beets	1,857	482	\$3,700	\$1,783,400
Vegetable Crops				
Asparagus	28	7	\$8,100	\$56,700
Tomatoes	1,577	410	\$8,100	\$3,321,000
Peppers	388	101	\$8,100	\$818,100
Seed Crops				
Sudan	572	149	\$3,700	\$551,300
Natural Habitat		2,666	\$3,400	\$9,064,400
Total				\$48,854,300

Easement acreage reduction in Alternative E = 3006 acres.

Estimated Cost of Fee Acquisition of MPA
(High)

Crop	Acres in Alternative	Estimated Acres Acquired	Estimated Price Per Acre	Estimated Cost Per Land Type
Field Crops				
Alfalfa Hay	126	8	\$3,700	\$29,600
Corn, field	2,889	815	\$3,700	\$3,015,500
Wheat	900	360	\$3,700	\$1,332,000
Barley	48	19	\$3,700	\$70,300
Mixed Hay and Grain	70	21	\$3,700	\$77,700
Pasture	2,154	176	\$2,800	\$492,800
Range	1,826	690	\$1,800	\$1,242,000
Rice	135	98	\$2,100	\$205,800
Safflower	297	18	\$3,700	\$66,600
Sugar Beets	857	202	\$3,700	\$747,400
Vegetable Crops				
Tomatoes	115	89	\$8,100	\$720,900
Natural Habitat		480	\$3,400	\$1,632,000
Total				\$9,632,600

Easement acreage reduction in MPA = 475 acres.

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 FISH AND WILDLIFE SERVICE
 2233 WATT AVENUE, SUITE 375
 SACRAMENTO, CALIFORNIA 95825
 OFFICIAL BUSINESS
 PENALTY FOR PRIVATE USE, \$300



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